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Designing a Child-Centred,
Quantitative Measure of
Inter-Ethnic Relations:
A Mixed Methods Approach

A thesis submitted for the degree of Ph.D.

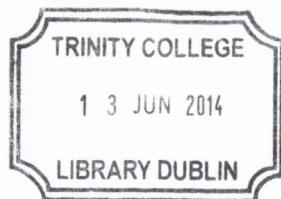
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The School of Social Work and Social Policy

Dublin University, Trinity College

September 2013



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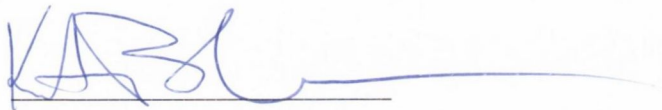
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A handwritten signature in blue ink, appearing to read 'KABINEAU', with a long horizontal flourish extending to the right.

Kate Babineau
September 30, 2013

SUMMARY

The main objective of the current body of research was to *design* and *validate* a broad and coherent, child-centred quantitative measure of inter-ethnic relations. Specifically, it sought to construct a measure that addressed certain fundamental gaps in the existing child-based, quantitative inter-ethnic instruments. First, it aimed to build a measure that was thoroughly *child-centred* in its formulation, its content, and its presentation. Next, it strived to make the measure both *broad and coherent*, capturing aspects of children's inter-ethnic relations from various layers of their ecological environment. Acknowledging the need for strong and transparent psychometric qualities, a highly detailed evaluation of the measure's reliability and validity was conducted. Often, these critical components of quantitative research are brushed over when in fact, they are fundamental to the legitimacy of any quantitative study, particularly when conducting child-based research. This project relied upon non-parametric item response theory scaling analyses to assess the *reliability* and *sensitivity* of the current measure. A battery of *robust validation* techniques was built into the design of the project, ensuring a multilevel evaluation of the new measure's ability to accurately capture real world phenomena. Finally, the project aimed to design a measure that is valid for use with children in *new migrant communities*, an area that is highly relevant in the current international climate but generally under-represented in existing, child-based quantitative inter-ethnic relations research. The measure was then assessed in an area of demonstrated need: *the association between inter-ethnic relations and mental health*. A worthy objective in its own right, this also served to further build construct validity of the new measure.

A two-stage, mixed methods design was employed to construct and evaluate the new measure. Phase one consisted of a qualitative pre-test of potential items. Phase two involved a pilot administration of the new self-report measure. Following an in-depth exploration of existing instruments and literature, an over-inclusive pool of potential items was generated. The items were pretested using cognitive interview techniques with 35 children in three primary schools. Qualitative interviews and behavioural observations were also conducted during this stage. The items were reduced and revised based on cognitive interview data, resulting in a pilot survey of 43 items. The pilot survey and outcome measures were then administered to 208 children in five primary schools. Participants ranged in age from 8-11 years. Non-parametric item response theory analyses led to the development of five, sensitive and reliable measures of inter-ethnic relations: the Contact with Children Born in Ireland scale, the Contact with Migrant Children scale, the Ethnic Bullying Scale, the Observed Ethnic Bullying Scale, and the Perceived Discrimination scale. The Contact with Children Born in Ireland Scale ($H=0.58$) and the Contact

with Migrant Children scale ($H=0.60$) both satisfied the requirements for the double monotonicity Mokken model, indicating the formation of two strong, hierarchical measures of contact. Robust validity was further built through criterion testing, predicted group outcomes, and testing associations between the new scales and widely established outcome measures of mental well-being.

Preliminary findings demonstrated the clear presence of social 'separateness', drawn along ethnic lines. Also, there were reports of ethnic bullying in all schools, a specific strain of aggressive behavior that targets a child's country of origin, skin colour, language, religion, or ethnicity. This was present in mixed schools as well as 'cluster' schools, and minority children were as likely to act as aggressors as their majority group peers. In qualitative interviews, children in the 'cluster' school described more incidents of blatant, racialized name calling than children in mixed schools. Children in mixed schools, however, were more likely to maintain distinct social circles, drawn along majority / minority lines. Exposure to ethnic bullying and feelings of perceived discrimination were associated with poor mental health outcomes including depressive symptoms and anxiety. Further research is needed to examine these preliminary findings on a broader scale, to identify patterns of positive, indifferent, and harmful inter-ethnic relations among children in new migrant communities.

The new measures are particularly suited for practical application by teachers, school administrators, and social researchers. It is suggested that the measure be used by school personnel to assess local bullying behaviour, in line with new national policies on school-based anti-bullying approaches. Furthermore, this project offers contributory tools required to evaluate the effectiveness of anti-bullying and anti-racism strategies on the school level.

ACKNOWLEDGEMENTS

Weird doors open. People fall into things.

-David Sedaris

A weird door opened and I fell into something. Rather, I dove into something. That something was this project and over the past several years, it has shaped me as much as I have shaped it. Now, as I near the finish line, I look over this journey with my mouth agape. I don't know how I got from there to here. However, I do know that from day one to day one thousand four hundred fifty five, I have been encased by support and encouragement in my professional and personal worlds.

My father, JP, has encouraged the pursuit of education for as long as I can remember. He and his wife Linda kept with this trend over the past several years, always reminding me to trust in myself. My mother, Marsha, possesses the world's most caring heart. Any compassion that I brought to this project, I inherited from her. Molly served both as a motivator (get 'er done, Katie) and as a caregiver, when I would arrive on her doorstep, jetlagged and muted, after 20 hours of plane hopping. She provided my home away from home for the past four years and the value of that cannot be overstated. My sister AJ, her beloved Brian, and their brood of 4 children bravely travelled, heaps of luggage and strollers in tow, to become the first and only Babineau brethren to set foot on Irish soil. In a similar vein, my cousin Adam Cortese rescued me from my academic tower during a particularly dreary October and whisked me away to Rome, where we drank wine and became enamoured with a singing cat. Seeing familiar faces, spending time with loved ones – these experiences were crucial for linking old and new worlds. My unusual plethora of siblings, nieces, nephews, cousins, aunts, and uncles turned my trips home into occasions that burst at the seams with love and tom-foolery. I am also blessed to have a collection of close friends who challenge me, support me, and believe in me: Ariane Mortazavi, Melissa Suter, Cheryl Kleiman, Laurel and Andrew Ross, Dr. Maeve and Niamh Wallace: Thank you, Thank you, Thank you. An especially poignant acknowledgement is extended to Lauren Reid, someone who has truly been with me on this journey from beginning to end. When I look back on these past four years, you will always be there, by my side, in the forefront of so many memories.

Like many of the children in this project, I migrated to Ireland. And like many of the children in this project, I left behind family and friends and sunshine and built a fresh life with new friends,

an adopted family, and nearly no sunshine.¹ Both places are home now and for that, I feel infinitely blessed. My advisor, Philip Curry, deserves the largest amount of credit. Thank you for the opportunity to undertake this project, for providing guidance that was sturdy and straightforward, for never giving out about my proclivity towards procrastination, and for helping me maintain perspective, both professionally and personally, when things went awry. Additional thanks to Robbie Gilligan, Eoin O'Sullivan, and Steph Holt for their support and feedback, and for the Trinity Immigration Initiative for funding this project. While housed at the Children's Research Centre, I was fortunate to work alongside many students & researchers who breathed life into an often lonely endeavour: Sandra McCarthy, Leslie Sherlock, Lindsey Garratt, Jenny Scholtz, Louise Yorke and the late Patricia Ruiz de Azua. Thanks to all of you for keeping me sane. A special thank you to Paula Mayock, an uninterrupted source of professional and personal support, and one of the most genuine, hardworking researchers that I have had the pleasure of being in awe of. Plus, she's usually up for a pint. Gill Kingston and Jackie Sinclair have watched me develop from the odd American girl who calls a fringe 'bangs' into someone who says 'good form' and 'fair play' without a hint of sarcasm. Plus, they were my partners on my first ever social research project many moons ago. If they hadn't been so fun to work with, I may have thrown in the towel on the entire field. Finally, Sarah Sheridan and Dovile Vildaite: two women of remarkable calibre whose company I have had the pleasure of keeping both in and out of the ghost town. Thank you for telling me to work when I needed to work, and to go to the Bernard Shaw when I needed to go to the Bernard Shaw. Knowing that you were beside me, figuratively and physically, has made this entire process manageable.

Lastly and most importantly, I extended my deepest gratitude to the many children, teachers, principals, and union professionals who graciously volunteered their time to my research. It goes without saying that without them, this project would not be.

¹ I'm not speaking metaphorically. There truly is nearly no sunshine.

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FOREWORD

*I have yet to see any problem, however complicated,
which, when you looked at it the right way,
didn't become still more complicated.*

-Poul Anderson

Gaining perspective on children's inter-ethnic relations can be a thorny task. I reached this conclusion when working as a primary school teacher and then cemented it during my time as a qualitative researcher. In both instances, I worked with children from various ethnic backgrounds in communities with high levels of ethnic and racial diversity. As a teacher, I worked in New Orleans, a city long recognized for being a so-called 'gumbo pot' of cultures and ethnicities. As a researcher with the Trinity Immigration Initiative, I conducted interviews in North Inner City Dublin, a long-established community that underwent a period of enormous demographic change during Ireland's migration boom. The two areas differ greatly in terms of population, ethnic make-up, cultural history, and social norms; yet I noticed similarities in each location with regards to how children from different ethnic and racial backgrounds interacted. In watching their exchanges, I learned that children's inter-ethnic relations are far more complex and nebulous than many adults realize.

For example, when working as a primary school teacher, a 9 year-old child used a racial slur on the playground during a game of football. His teammates began to reprimand him immediately, demonstrating a collective belief that racialized name calling was wrong and intolerable. What I found interesting about the situation was that the same group of children typically self-segregated along the lines of skin color, with African-American children and European-American children keeping separate and distinct social circles. I had witnessed very little inter-racial contact among the different groups of children during unstructured school time. It seemed as though they acknowledged that using ethnic slurs was wrong but saw no problem in maintaining segregated peer groups drawn along the lines of skin color. This particular incident forced me to question the relationship between expressed ethnic attitudes and inter-ethnic behavior. Is segregation among children along the lines of skin color a behavioral reflection of prejudiced beliefs? What role does privately held prejudice play in regards to peer relationships and friendship formation? Is there any way to find out?

The ambiguity of children's inter-ethnic relations was reinforced during my time as a qualitative researcher on the Trinity Immigration Initiative's Seven School study (Curry, Gilligan, Garrat, &

Scholtz, 2011). On this project, a colleague interviewed a young, new migrant child about his peer relations. Early in the interview, the child described his relationship with his Irish classmates as a positive one, saying that he got along well but occasionally was 'slagged'. Later in the interview, the child discussed in detail his exposure to severe bullying on the basis of his ethnic background. This example demonstrates how difficult it can be for researchers to go beyond the surface to the realities of children's inter-ethnic relations. Even with child-friendly and nuanced methods such as semi-structured interviews, serious cases of ethnic bullying can go undetected. Children who are experiencing problematic inter-ethnic relations may be hesitant to share their experiences for a number of reasons. In the case of first generation migrant children, they may be struggling to understand the rules and norms of their new social world. When does name-calling become bullying? How do migrant children learn how to draw that distinction? A child's unwillingness to discuss problematic peer relations can be compounded by the pain and shame that often accompanies harassment. Children may downplay the effect that discrimination, ethnic bullying, and peer rejection have on their lives but research shows that exposure to racism in childhood can have serious negative consequences (Pachter & Coll, 2009; Priest et al., 2013). If children are inclined not to share incidents of negative inter-ethnic relations, how can researchers gain access? What measures will allow for an accurate assessment of children's peer relations if the children themselves have difficulty defining or sharing their experiences?

While these examples are specific cases, they are representative of some of the overarching challenges that researchers face when trying to measure children's inter-ethnic relations. The potential for contradiction between privately held and publicly expressed beliefs, an apparent difference between stated attitudes and behavior, and the tendency to underreport problematic inter-ethnic relations all present serious methodological challenges for researchers. Many studies have approached this topic qualitatively, as these methods offer more opportunity for nuance to enter into the data. However, my colleague's interview with the migrant child is a key example of how challenging it can be to accurately capture peer relations, even with the most nuanced of approaches.

The multifaceted, hard-to-reach nature of children's inter-ethnic relations is reflected in the existing quantitative literature on the topic. Many studies rely on data gathered from adults, or with measures designed and validated with older populations. Others use measures that require one-on-one administration with a myriad of additional resources or prompts. Yet others take existing measures of peer relations and generalize their findings to gauge inter-ethnic relations. All of these existing approaches present theoretical, methodological, or practical concerns. Data collected from adults, or with measures designed for use with older populations,

can be invalid and misrepresentative. Face to face administration measures of ethnic attitudes provide reliable information for psychologists and social researchers, but are impractical and demanding of resources for practitioners. Existing measures of peer relations may capture one element of inter-ethnic contact (i.e. 'best friendship') but fail to consider the many other alternative ways that inter-ethnic relations can manifest.

The main objective of this research is to develop a broad and coherent, child-centered, psychometrically valid measure of children's inter-ethnic relations. This is an ambitious objective. In spite of a long history of research, quantitative measurement of inter-ethnic relations among children remains controversial. However, the overall purpose of this project extends even beyond this challenging technical objective. The aim is to demonstrate the genuine need for such a tool, not only in psychometric terms, but with relation to practical, everyday application. While the procedural elements of measurement development may only be of interest to a small 'niche' group of quantitative social scientists, the end result of a truly valid and reliable child-centered measure of inter-ethnic relations will serve practitioners in a wide range of fields. Gaining insight into children's inter-ethnic relations is critical for teachers, principals, counselors, psychologists, health care professionals, and policy makers. Issues related to inter-ethnic relations and behavior play out among children everywhere on a daily basis. Accessing these relations and behaviors in a way that is precise, sophisticated, broad and valid requires an adherence to strict psychometric and ethical standards. Much of the content presented in this thesis will be technical and complex. However, it is the aim of the author to draw the attention of the reader back to the most important issue at hand: that advanced statistical methods, clear terminology, and stringent adherence to standards of practice are necessary steps towards building a measure that can accurately and effectively evaluate an important aspect of children's lives. This project aimed to design and test a practical tool to better understand how children from different ethnic backgrounds interrelate. In a world where inter and intra-country migration is rising, developing effective means of measuring inter-ethnic relations among children is critical at a local and global level.

The presentation of the project begins, in *Chapter One*, by setting the contextual stage for the research. Ireland's recent history of migration and the current state of multi-ethnic schools are discussed. The country's national primary education system and policies are distinct from other states in many respects, and thus warrant a brief introduction for the sake of clarity. This chapter highlights the rapidity with which Ireland's ethnic landscape changed, and the current policies affecting multi-ethnic primary schools in the country.

Chapter Two presents an overview of the relevant literature and measurement theory that informed the development of the new measure. Existing measures of inter-ethnic relations are reviewed. The structural framework for measurement construction and selection is introduced, along with the driving, child-centered ethos. Item response theory and validity theory are discussed in the context of the contributions that they made to the current research. Finally, relevant literature on the associations between problematic inter-ethnic relations and mental well-being in children is presented, demonstrating a need for a broad and cohesive, child-centred, psychometrically valid measure of inter-ethnic relations.

Chapter Three discusses the methodological and analytic approaches adopted by project. A justification for employing a two-stage, mixed methods approach to measurement construction is made. The details of the qualitative and quantitative elements of the pre-test and pilot phases are discussed. The quantitative analytic approaches are introduced, highlighting the psychometric benefits of employing non-parametric item response theory scaling procedures in measurement construction.

In *Chapter Four*, the presentation of the research findings begins with a detailed discussion of the cognitive interview pre-test phase of the project. Cognitive interview data is analyzed, demonstrating its impact on the maintenance, revision, or removal of pre-test items.

Chapter Five presents the scaling analyses and validation testing of two new measures of inter-ethnic contact. The results of a confirmatory factor analysis and non-parametric scaling techniques are presented, along with criterion and known group validation testing. Qualitative findings are presented, further validating the quantitative measures.

The structure of *Chapter Six* mirrors that of Chapter Five, presenting the scaling and validation testing of three measures of problematic inter-ethnic relations. Again, confirmatory factor analysis results are presented, followed by a scaling evaluation, and validation testing. Qualitative findings are once again presented to provide detailed contextual information and to further validate the quantitative measures.

Chapter Seven closes the report by reflecting upon the ways in which the project achieved its stated aims, and the areas where further research and work is required. It highlights the strengths of the new measures from a practical standpoint, and also draws attention to its limitations. It places the preliminary findings in the context of the national and international literature, with a focus on the association between children's inter-ethnic relations and mental health. Finally, recommendations are made for future applications of the new measure and ways in which quantitative research on children's inter-ethnic relations can be used to improve the quality of children's social relations in school and in the broader community.

A NOTE ON TERMINOLOGY

Discussing inter-ethnic relations is often laden with complexities and gradations. At what stage does a 'migrant' become a 'national'? How does one classify a child born to two migrant parents? Is it ethical or appropriate to use hyphenated, classified definitions of nationality (i.e. 'African-Irish', 'Polish-Irish') as is often done in other multicultural societies? As discussed in detail later in the project, the issue of terminology presented complications with regards to measurement and wording. However, it also posed a consideration for the actual write-up. What is the most ethical and concise way to describe ethnic distinctions on paper? In the Irish context, recent research has relied on a binary approach to categorization of children in Ireland, drawing on the 'migrant' or 'newcomer' vs. 'native' or 'local' distinction (Curry, Gilligan, Garratt, & Scholtz, 2011; Smyth, Darmody, McGinnity, & Byrne, 2009). In the very recent past, these classifications were applicable. In 2009, only 1.1% of all 'minority' children in Irish primary schools had been born in Ireland (Taguma, 2009). However, much has happened over the past four years. A growing number of children born in Ireland to migrant parents have entered the education system. While there are no statistics on the specific figures, the majority of children born to migrant parents in Ireland prior to 2009 are now enrolled in Irish primary schools.² These children are not migrants, nor are they newcomers. However, they are also distinct from children with a longstanding Irish ancestry. Therefore, I will use the following terms to describe ethnic distinctions in the current study:

Multigenerational Irish / Majority – These terms are used interchangeably to describe individuals with a longstanding Irish ancestry.

Migrant – This term describes an individual who was born in a country other than Ireland and now resides in the Republic.

Second-generation migrant – This phrase is used to designate a child born in Ireland to migrant parents.

Minority – This term describes someone who is not part of the traditional, majority Irish population (white, Catholic, settled, Irish ancestry). In the current study, this phrase is used to designate first and second-generation migrant children collectively but would also be applicable to Irish traveler populations.

² Children in Ireland typically enter Junior Infants at age 4.

Cluster School – This phrase delineates a school that is comprised almost exclusively of migrant and second-generation migrant children. The term is borrowed from a Department of Education and Science report (2008). While there is not a recognized ethnic saturation point after which a school becomes a ‘cluster’ school, the current study uses it to designate schools with more than 98% minority populations.

Mixed School – For the purpose of this write up, a mixed school designates all multiethnic schools that are not cluster schools.

This terminology is inescapably limited, as it is unable to highlight the nuanced differences between different types of migrant / second-generation migrant youth (i.e. asylum seekers, returning Irish parents, EU migrant workers). Furthermore, the classification of multigenerational Irish children as such fails to identify those who may have heritage from one of Ireland’s more long-standing (though notably small) minority groups. However, it was necessary to apply terms and phrases to concisely describe ethnic gradations in Ireland.

CHAPTER 1: MIGRATION AND THE STATE OF MULTI-ETHNIC SCHOOLS IN IRELAND

You know the funniest thing about Ireland? On a map, it's just a dot.

--Multigenerational Irish girl, second class

This chapter sets the contextual stage for the current project with a concise description of Ireland's recent inward migration and its impact on multiethnic schooling. Ireland's national primary education system and policies are distinct from other states in many respects, and thus warrant a brief introduction for the sake of clarity. The impact that the Irish education system and enrollment policies, in particular, have on inter-ethnic relations among children is noteworthy. Therefore, these are discussed in some detail to provide the reader with clear background information on the situational factors affecting inter-ethnic relations on a broad level.

Ireland's recent history of migration

Ireland has undergone a period of sudden and extreme transformation in recent years. Historically known for its steady pattern of emigration, the country experienced a rapid and considerable increase in the diversity of its population during the 2000s. This was driven by Ireland's period of economic growth known as the 'Celtic Tiger' and the country's comparatively open migration system during those years (IOM; 2006, NESC; 2006). The economic collapse of the late 2000s marked a return to emigration for many multigenerational Irish citizens and a considerable decrease in new migration into the country. However, the most recent census showed that many migrants and their families have remained in Ireland despite the economic situation. The result is a lasting change in Ireland's ethnic landscape. A country once known for its largely homogeneous population is now home to over 544,000 migrants from 199 countries (CSO 2011).³

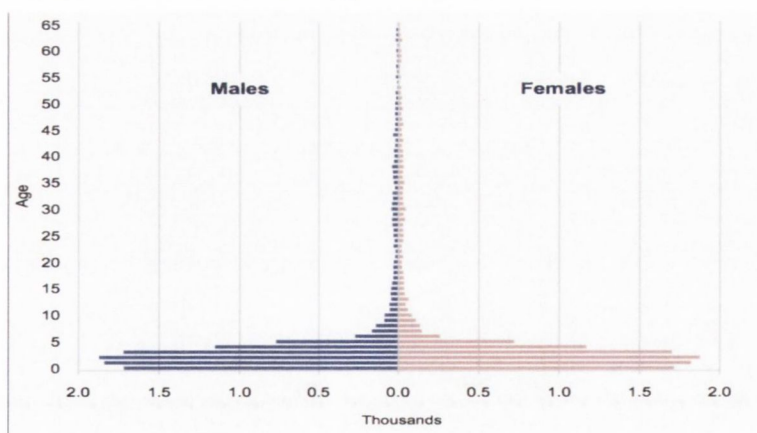
What makes Ireland's migration story unique is the speed at which a nation that had once been referred to as the 'human resource warehouse of Europe' absorbed such a diverse, new migrant population (King, Shuttleworth, & Walsh, 1996). The Irish census first measured ethnicity in 2002, a standalone fact that underlines the country's longstanding homogeneity. Between 1996 and 2002, non-national inhabitants in Ireland grew from approximately 61,000 (1.7%) to

³ The nation was not exclusively homogenous prior to the 1990s/2000s. The indigenous Traveller community and relatively small Italian, Chinese, and Jewish communities had been part of Irish society for some time. See (Fanning, 2002) and (Lentın & McVeigh, 2006) for a complete discussion of the history of Ireland's minority populations.

224,300 (5.7%). Between 2002 and 2011, the non-national population swelled to 544,357 (CSO 2011). Migration slowed with the economic downturn, but there is still a steady flow of new migrants arriving into the country. Recent statistics showed that 52,700 people migrated in 2011 and an additional 54,900 arrived in 2012 (CSO 2013). In the decade since Ireland first included a question of ethnicity on its census, the total number of migrants expanded to over 13% of the total population.

The current diversity of Ireland's population is also reflected in children under the age of 14. The 2011 census found that 96,094 'non-Irish' children aged 0-14 were resident in the state, comprising approximately 10% of the total under-14 population. The census report makes no distinction between first and second-generation migrant children, which may reflect a 'lag between mechanisms of state quantification and demographic reality' in modern day Ireland (Ledwith & Reilly, 2013). It did, however, report a 53% increase in family households headed by a non-national between the years of 2006 and 2011. This is a stark increase when compared with a total non-national population increase of 30% during that same time frame. Figure 1 from the 2011 census provides a graphic representation of the percentage of non-Irish nationals born in Ireland, aged 0 to 65. The transformation is drastic, demonstrating the comparatively large number of children born to migrant parents in Ireland over the past decade.

Figure 1: Non-Irish nationals born in Ireland aged between 0-65



CSO, 2011

The notable increase in second-generation migrants born in Ireland over the past decade will have a lasting impact on the ethnic makeup of the country. However, as stated earlier, the ethnic diversity of children under the age of 14 is not merely the result of children born in Ireland to migrant parents. Though slower than in recent years, there is a continuous, steady flow of new migrants arriving to Ireland. Table 1 presents the migration patterns for children aged 0-14 between 2008 and 2013. While the census data does not explain exactly who is emigrating (multigenerational Irish or minority populations), the message it does provide is

clear: the flow of new migrant children into the country dropped considerably in the years immediately following the economic collapse. Now, however, the levels are rising once again and overall net migration of children into Ireland appears to be steadily increasing.

Table 1: Migration patterns for children aged 0-14 by year

Census Year	Immigrants (in thousands)	Emigrants (in thousands)	Net Migration (in thousands)
2008	13.9	1.6	12.3
2009	4.5	2.4	2.1
2010	1.8	2.0	-0.2
2011	6.1	5.3	0.9
2012	7.9	4.9	2.9
2013*	9.3	6.8	2.5

**Estimated April 2013 – CSO, 2013*

The current state of multiethnic schools in Ireland

The rapidity of Ireland’s demographic shift was largely unforeseen by Irish society, and its policymakers. In the face of sudden change and charges of growing anti-immigrant sentiments reported by the media, policymakers moved quickly to construct national integration and anti-racism strategies (Kitching, 2010).⁴ While oratorically inclusive, these strategies have been criticized for being ad hoc, inconsistent, and laissez-fair (Boucher, 2008; Bryan, 2009a). Policymakers were optimistic and unfailingly ‘welcoming’ in their rhetoric towards the new migrant population. The newness of Ireland’s diversity was often publicly discoursed as an opportunity to avoid the integration ‘mistakes’ made by other ‘sorry story’ European nations (i.e. Britain, Netherlands) (Kitching, 2010; NESC, 2006). An emphasis was placed on maximizing the benefits of multiculturalism and ‘pre-empting’ racism through promoting an inclusive, intercultural national ethos (DES 2000).⁵ Education policy makers embraced this emblematic strategy, publishing guidelines for schools and teachers on how to mediate the curriculum in a way to reflect diversity, enhance intercultural education, and create an inclusive school culture for all students (NCCA 2006).

⁴ See: National Action Plan Against Racism (Department of Justice, 2005), Migration Nation (Office of the Minister of Integration, 2008).

⁵ For a comprehensive discussion of the corporate resonances of the ‘gains’ of multiculturalism in Ireland, see Bryan 2008, 2010.

However, the optimistic and inclusive rhetoric presented at a national policy level has not been uniformly translated into practice on the ground level of education. The lived reality of multicultural education in Ireland is often less optimistic and celebratory. Many teachers express a generalized anxiety and frustration about the lack of appropriate resources available to them for language support, home visitations, or broad inter-cultural training (Bryan, 2010; Devine, 2005; Leavy, 2005; Nowlan, 2008). Research has showed that migrant students are more at risk for bullying than their majority group peers (Curry et al., 2011; Devine & Kelly, 2006). It has been argued that the inclusive intercultural ethos promoted by the National Council for Curriculum and Assessment, and the ad hoc diversity initiatives adopted by individual schools, actually serve as mechanisms to reinforce racial inequality and 'otherness' of minority students in multiethnic schools (Bryan, 2009a; Devine, 2005). Furthermore, the DES requirement for all primary school teachers to hold an Irish language teaching qualification produces a body of educators who overwhelmingly represent the dominant group in Irish society (white, Catholic, settled) (Devine, 2005; Wallen & Kelly-Holmes, 2006).

One area of particular contextual relevance for the current study is the impact of enrollment policies on the formation of so-called minority 'cluster schools'. Primary schools in Ireland are governed by 'patron bodies' and operate within a broad framework established by the Department of Education and Science (DES). The vast majority (over 90%) of Ireland's 3,200 primary schools are governed by the Catholic church, with the remainder being overseen by the Church of Ireland, other religious organizations, and multi-denominational / inter-denominational bodies (Taguma, 2009). Rather than rely on geographically designed attendance zones, parents in Ireland have a constitutional right to send their child to their school of choice (DES, 1998). Individual schools, then, are responsible for defining their own admissions policies when limited placements are available. Clauses providing preference to students on the basis of religion, catchment area, sibling enrollment, or a 'first come, first serve' basis are commonplace (Ledwith & Reilly, 2013; McCutcheon 2007).

Though not explicitly stated, several of these enrollment policies favor children from traditional, multigenerational Irish backgrounds. In growing communities, inadequate allotments have resulted in many minority children being unable to enroll in primary school. In 2007, the residual fallout from these policies made international news when an "emergency all-black" school, as branded by the media, opened in a Dublin commuter town after African migrants were unable to enroll their children in existing local schools (McDonald, 2007; Sharrock, 2007). Labeled the 'rapid delivery programme', the emergency school building initiative employs a 'fast track' approach to opening new schools to 'meet increased demographic demand' in growing areas. The programme has been consistently expanding over the past five years, with an

additional 15 new schools opening in September 2013 (Alhstrom, 2013). In a formal response to the 2007 admissions controversy, an audit of enrollment policies was conducted by the DES. The then Education Minister reported “a number of school ‘clusters’ where evidence points to some schools assuming more responsibility for enrolling children of all backgrounds and needs within their local community than others”, but denied a “problematic enrollment practice on a wide scale” (DES, 2008).

Despite the statement, there is a concerning emergence of ethnic grouping and ‘cluster’ schools in areas with relatively high minority populations (Ledwith & Reilly, 2013). Many schools originating as part of the ‘rapid delivery programme’ are serving predominately minority populations, with other schools in the area serving largely multigenerational Irish students (Moriarty, 2011). The result is a system of parallel schooling, which strongly resembles ethnic segregation, emerging in some communities.

It is against this backdrop that the current study set out to design a broad and cohesive, child-centered, reliable and sensitive, robustly valid, measure of inter-ethnic relations. The importance of successful development of such a tool is apparent in the local context, but will be of equal relevance in many other new migrant communities. This introduction aimed to provide vital background evidence on Ireland’s recent history of migration and on the current state of multiethnic primary schools in the country. Many of the participants in the current study attend minority ‘cluster’ schools; thus, it was important to explore the policies and processes leading to the development of these institutions in order to contextualize the findings presented in the coming chapters.

CHAPTER 2: THEORETICAL AND PRACTICAL FOUNDINGS OF THE NEW MEASURE

This chapter presents a review of the relevant literature and measurement theory informing the development a new, child-centred measure of inter-ethnic relations. The review begins with a brief theoretical discussion of the construct of 'ethnicity' and why 'inter-ethnic relations' was selected as a key phrase in the research. This is followed by an examination of the most widely used, existing quantitative measures of inter-ethnic relations currently available. The benefits and shortcomings of these methods are weighed, and their key findings on the nature of children's inter-ethnic relations are presented. The chapter goes on to present the structural framework guiding the design of the current measure, followed by a discussion on the importance of adopting a child-centred approach to child-based research. The quantitative measurement theory guiding the psychometric evaluation of the new measure is discussed in some detail. Finally, the value of designing the current measure is proven through an exploration of literature on problematic inter-ethnic relations and children's mental health.

2.1 – CONCEPTUALIZING 'ETHNICITY' AND 'INTER-ETHNIC RELATIONS'

As touched upon in the 'terminology' section, finding appropriate and succinct terms to discuss the topic at hand can be troublesome at best. The ultimate aim of the project is to design a child-centred quantitative tool that can measure relationship dynamics between children from diverse backgrounds. When considering the 'diversity' of an individual's background, one must consider a variety of contributing factors. For example, country of birth, parents' nationalities, language, skin colour, religion, socioeconomic status, and cultural values are all potentially relevant and influential features. Often, these individual components are definitional elements of 'ethnicity' (Phinney & Ong, 2007). The ontological concept of 'ethnicity' is widely studied and debated among sociologists, anthropologists, and social scientists. While there is no universally agreed upon definition, it is broadly recognized as a state of belonging to a group along the lines of common ancestry, religion, race, language, culture, values, and history (Bates, 2006; Brown & Langer, 2010; Glazer, Moynihan, & Schelling, 1975).

Despite its frequent occurrence, the terms 'race' and 'ethnicity' should not be used interchangeably (Ford & Kelly, 2005; Hahn & Stroup, 1994). Race is regularly associated with personal identity, biological indicators, and some elements of group identity. Ethnicity, on the other hand, is often conceptualized more as a socio-political construct involving shared culture, origin, attitudes, language, religion, and cultural traditions (Freeman, 1998; LaVeist, 2005; Sheldon & Parker, 1992). While the concept of ethnicity is more inclusive, it is also invariably

more subjective and susceptible to change over time due to its dependence on fluctuating cultural identity (Carter, Hayward, Blakely, & Shaw, 2009).

The fluidity and subjectivity of 'ethnicity' as a concept make it a contested variable in quantitative research. The argument can be made that a rigid classification of ethnicity borders on primordialism, assigning fixed distinctions to a concept that is widely regarded as being socially constructed (Brown & Langer, 2010). Pre-assigned 'ethnic categories' by institutionalized bodies (i.e. states, religious institutions, academia) may arbitrarily and objectively group individuals in a way that does not reflect their personally held ethnic identities (LaVeist, 2005).

In research with adult populations, this ethical concern is typically resolved by allowing individuals to self-assign their ethnicity. This is widely recognized as a more principled, representative, and appropriate means of coding the variable than external assignment of ethnic categories (Bradby, 2003; Ellison, 2005; Gerrish, 2000). However, when conducting research with children, the issue of self-identification and self-categorization becomes more nebulous. It is unquestionable that children have the capacity to group themselves and others along certain lines (Aboud, 2003; Bigler, Jones, & Lobliner, 1997; Nesdale & Brown, 2004). However, the language and terms used by school-age children are often not inter-changeable with those employed by adults. Phrases such as 'ethnicity' and 'ethnic group origin' are not typically part of a child's vernacular. Therefore, including an explicit item on ethnic group origin or ethnic self-identification would likely have been methodologically and developmentally inappropriate for the current study. As a result, the researcher took it upon herself to assign children to broad, mutually exclusive categories based on specific elements (i.e. birth country, parents' birth country). It was not without careful ethical deliberation that this decision was reached. However, after considering the nature of the project, the available resources, and the developmental level of many of my participants, it was felt that this would be the most appropriate method of categorizing respondents for the purpose of measurement design and analysis.

It is true that categorizing and classifying individuals into groups along pre-defined lines is restrictive and oversimplified. This is been true of many constructs assessed through quantitative research such as ethnicity, skin colour, socio-economic status, and education. More recently, this has become true of constructs that have long been conceptualized and understood as fixed, such as gender (Austin, Conron, Patel, & Freedner, 2007; Kon, 2014). However, quantitative research, by its nature, necessitates the categorization of individuals into mutually exclusive groups. Furthermore, it requires the assignment of labels and terminology to these

groups to facilitate analysis, discussion, and presentation. As such, the decision to quantitatively investigate relationships along the lines of ethnicity can be justified eloquently by Brown (2010):

While quantitative studies of ethnic diversity are inherently problematic because this requires the reduction of ethnicity into exhaustive and mutually exclusive ethnic groups (something sophisticated theories of ethnicity militate against), as long as the interpretation of results is cognizant of the limitations of this kind of categorization, quantitative analysis can provide a useful systematic form of comparison.

This study also relies upon the term 'inter-ethnic relations' to describe various types of relationships or interactions that may occur between children from different ethnic backgrounds.⁶ While the phrase 'inter-ethnic' is employed as a rhetorical 'catch-all', the research aimed to design a measure that accounted for many determinants of diversity, including but not limited to 'ethnicity'.⁷ Ethnicity, as a concept, a term, and a variable, is widely used in large scale, quantitative surveys both in Ireland and abroad (Kertzer & Arel, 2002; Lang, 2002; Mathur, Grundy, & Smeeth, 2013; McKenzie & Crowcroft, 1996). Given its widespread utilization and its inclusive conceptual definition, it was decided upon as the broad theoretical term employed in the current study. While I acknowledge the limitations of 'ethnicity' as a concept and a quantitative variable, I also acknowledge the undeniable need for succinct and convenient terminology when embarking on a practical, methodological study of designing a child-centred quantitative measure.

2.2 - EXISTING QUANTITATIVE MEASURES OF INTER-ETHNIC RELATIONS

Studies exploring children's understanding of race, ethnicity, and nationality have had a long history in social research (Clark & Clark, 1939). Often these inquiries were conducted by developmental psychologists who theorized that a child's ability to identify skin color and ethnicity is inextricably linked to the child's own perception of self. The literature on the subject matter is vast, and ongoing debate continues over exactly how children develop inter-ethnic attitudes. Dispute aside, existing research has concurred that children as young as four are capable of possessing ethnic awareness (Aboud, 1988; Clark & Clark, 1939; Connolly, 2011; Connolly, Kelly, & Smith, 2009; Katz & Zalk, 1978; Kinzler & Spelke, 2011; Shutts, Roben, & Spelke, 2012). The methods and tools used to assess children's understanding of 'race' and the way that their racial attitudes affect behaviors have grown more sophisticated over the past 70

⁶ 'Inter-ethnic relations' is also the term used in recent qualitative research on the topic of diversity in Irish primary schools conducted by the Trinity Immigration Initiative.

⁷ A complete discussion of independent variables is presented in Chapter 3.

years (Tredoux, Noor, & de Paulo, 2009). Before moving forward with the construction of a new measure of inter-ethnic relations, it was important to be familiar with the variety of available instruments typically used to assess ethnic attitudes and behaviors. A grounded understanding of the strengths and weaknesses of these tools proved fundamental in the construction of a new measure.

When assessing children's inter-ethnic relations, studies typically aim to measure at least one of two following constructs: racial or ethnic *attitudes* and inter-racial or inter-ethnic *behavior*. Typically, ethnic attitude measures involve liking judgments about ethnic targets represented on paper-based measures of attitude with pictures or by physical objects such as a dolls (Correll, Judd, Park, & Wittenbrink, 2010; Tredoux et al., 2009). These methods are based on the premise that if all targets regardless of race or ethnicity are presented clearly and as attractively as possible, a child's response to one target can be generalized to the category as whole. Measures of inter-racial or inter-ethnic behavior, on the other hand, often involve observations of children's inter-ethnic interactions, either in an experimental environment such as a lab or in a contextual environment such as a classroom or a playground. A fundamental criticism of this approach is that in behavioral observation, children are responding to a specific target in context and therefore, it is often difficult to make claims of generalizability (Tredoux et al., 2009). Following is a review of some of the prominent measures used to assess children's inter-ethnic relations, including measures of ethnic or racial attitudes as well as inter-ethnic behavior.

ATTITUDE MEASURES

Rating Representative Ethnic Figures

One of the earliest and most well-known measures of racial attitudes in children is the *Clark Doll Tests*, developed by Kenneth and Mamie Clark in 1939 and implemented in a series of studies in the United States during the 1940s. Clark and Clark argued that children lacked the cognitive and linguistic sophistication to indicate race preference on attitude scales but they would be able to indicate racial preference via a graphic, recognizable object such as a doll. In the doll test, child participants were given a choice of two dolls, one white and one brown, and asked a series of questions including 'which doll do you like best, which doll is the white doll, which doll is the 'negro' doll, which doll is nice, which doll is bad, which doll looks like you?'. The study found that three year olds showed racial identification of self 61% of the time and seven year olds showed racial identification of self 93% of the time. In terms of racial preference, African-American seven year olds selected the white doll as the doll that they 'liked best' 75% of the time (Clark & Clark, 1939; Clark & Clark, 1950). The findings of the Clark doll test resonated

strongly with the American public and policy makers and in 1954, were used as evidence in the *Brown vs. Board of Education* court case which over-ruled racial segregation in public schools in the United States (Clark, Chein, & Cook, 2004). Following the impact of the Clark doll test, many similar studies assessing children's racial preferences and racial identification emerged in the 1950s and 1960s (Clark & Clark, 1950; Meij, 1966; Vaughan, 1986). Over time, methodological criticisms of Clark's methods mounted, citing a lack of adequate controls for factors including gender, interracial contact, and interviewer's race (McMillan, 1988). Others criticized the use of colored dolls as an indicator of racial preference, pointing out that at the time, the majority of African-American children played with white dolls at home and could be simply indicating a preference for familiar toys (Brand, Ruiz, & Padilla, 1974). While the methods employed in the Clark tests were eventually discredited, they set the stage for future assessment of children's inter-ethnic relations. Many of today's prominent measures continue to rely on representative ethnic figures to assess ethnic attitudes.

One of today's leading child-based measures of rating ethnic figures is the *PRAM II*, a revised measure of the Preschool Racial Attitude Measure (J. E. Williams, Best, Boswell, Mattson, & Graves, 1975). The PRAM II measures racial attitudes among young children by presenting participants with 24 racial items and 12 filler gender items. The racial items involve white skinned and dark skinned figures and an evaluative statement. An example of a statement is: "Some girls are friendly. They have a lot of friends because they are fun to be with. Who is friendly?" (Aboud, 1988). Children are asked to indicate which figure best fits the description. Children's scores are tallied based on their pro-white and anti-black choices and the child is given an attitude score based on their answers. A revised version of the measure, the multiPRAM, avoids the 'forced-response' nature of the PRAM II by allowing children to ascribe the evaluative trait to neither figure, one figure, or both figures (Aboud, 2003). Benefits of using the PRAM II or the multiPRAM include the child-centered nature of the measure and its ease of administration (Tredoux et al., 2009). A major limitation of the PRAM II and the multiPRAM is that items feature only two figures: one white skinned and one black skinned. Therefore the measure can only be used as an indicator of skin colour preference, not necessarily ethnic preference.

The *Multi-Response Racial Attitude (MRA)* measure differs from the PRAM II and the multiPRAM in that it is able to assess racial attitudes towards multiple ethnic groups (Aboud & Doyle, 1996). The MRA asks children to assign 20 evaluative attributes to different groups. These consist of 10 positive characteristics (i.e. plays fair, is friendly) and 10 negative characteristics (i.e. excludes others). In a standard administration of the measure, children are presented with photos of individual children, one from the same ethnic group as the child and 2 or more from

different ethnic groups. Each photo has a box in front of it. Children are given a total of 20 cards, each with a descriptive word on it, for each of the groups. They are then asked to insert cards into boxes, depending on who they think behaves a certain way. For example, 'Some children are friendly. Who is friendly? Is the black child friendly, the white child, the Asian child, or is more than one of them friendly?' (Tredoux et al., 2009). The number of evaluations are then tallied and calculated based on the attribution of positive or negative characteristics. Positive aspects of the MRA are that it features both positive and negative attitude evaluations and a child is allowed to designate an attribute to more than one group. The measure has established reliability through internal consistency tests with alpha coefficients and criterion validity in relation children's actual friend selection (Aboud, Mendelson, & Purdy, 2003; Johnson & Aboud, 2013).

Implicit Association Tests

A relatively new method of assessing children's ethnic or racial preferences involves a measure of children's 'implicit' attitudes. While many ethnic attitude measures ask children to explicitly state or indicate their preference for one target or another, implicit association tests (IAT) attempt to gauge children's unconscious attitudes or subtle prejudices towards a particular target. It is suggested that this reduces the possibility of desirability bias in the testing process (Cunningham, Preacher, & Banaji, 2001). In practice, IATs are administered to children through a computer. Images from two categories are shown on a screen (ex: white child, black child) and the child is asked to respond to the stimuli by assigning a positive attribute to one category and a negative attitude to the other as quickly as possible by tapping a key on a keyboard. This is done for a number of trials and then the process is reversed. The test then measures the reaction time of the participant when applying negative attributes to a figure versus positive attributes. A child version of the IAT has been developed and used to assess ethnic prejudice, migrant identity, and group preference in a number of studies (Baron & Banaji, 2006; Corenblum, 2013; Dunham, Baron, & Banaji, 2006; Rutland, Cameron, Milne, & McGeorge, 2005; Vezzali, Capozza, Giovannini, & Stathi, 2012). However, there is debate surrounding the link between unconscious implicit attitudes and actual behavior and further criticisms raised about the construct and criterion validity of the measure (Blanton, Jaccard, Gonzales, & Christie, 2006; Fiedler, Messner, & Bluemke, 2006; Ottaway, Hayden, & Oakes, 2001).

BEHAVIOR MEASURES

Friendship Patterns / Inclusion and Exclusion

Some form of sociometric methodology is commonly used for measuring inter-ethnic peer relationships, friendships, inclusion, exclusion, and peer rejection (Aboud et al., 2003; A. D. Bellmore, Nishina, Witkow, Graham, & Juvonen, 2007; Cillessen, 2009; Smith & Schneider, 2000). Most commonly, this takes the form of peer nominations, where children are asked to make a list of their peers according to a specific category (Whitcomb & Merrell, 2013). For example, some studies have asked to list their best friends, who they would like to study with, who they play with during free time, or who they would like to invite over to their house. These questions can take the form of either established behavior (please list the children you play with at yard time) or desire (who would you like to invite to play at your house?). Mutual friendships are typically established when there is a double-nomination (i.e. two children nominate each other as friends). Peer nominations can also be used to measure peer rejection or exclusion by asking children who they dislike or who they don't like to play with. Sociometric techniques are a widely used and well-established method of assessing children's peer preferences and relations (Tredoux et al., 2009). However, researchers must be careful to not place too much emphasis on peer nomination as a sole indicator of inter-ethnic relations, as they tend to leave room for ample subjective interpretation on the part of the respondent and can be limited in their ability to assess 'unconventional' friendships. While 'best friendship' is an important dimension of peer relations, it fails to recognize other positive or negative types of peer interaction that could be occurring in a child's social world.

Behavioral Observation

In some studies, children's inter-ethnic behaviors are assessed through observation of children's social interactions (Connor, 2012; Nock & Kurtz, 2005; Peters & de Haan, 2011). Behavioral observations can be performed and interpreted qualitatively (unstructured) or quantitatively (structured). As this review is focusing on quantitative measures of inter-ethnic relations, only quantitative approaches will be discussed. Observational data can be gathered quantitatively by assessing children's interactive or parallel play with another child, typically during class time or unstructured play time (Craig, Pepler, & Atlas, 2000). In inter-ethnic relations research, the dyadic partner's ethnicity or race is recorded and then the observed proportion of playmate choice is statistically controlled for numbers of classmates available from each ethnic group (Tredoux et al., 2009). A common criticism of this method is that during playtime, children are interacting with a specific target. There is no way to control for the child's personal relationship with the given target and the unknown factors could influence the nature

of their interaction. This could make it difficult to generalize findings produced from observational data alone. Still, observational data provides insight into the 'real world' inter-ethnic behaviors of children and can be gathered quantitatively or qualitatively to build content validity for supplementary measures (Clark & Watson, 1995; Haynes, Richard, & Kubany, 1995; Sartori & Pasini, 2007).

KEY FINDINGS OF EXISTING MEASURES

The discussed measures represent some of the most widely used quantitative approaches to assessing children's inter-ethnic relations. There are dozens of additional instruments in the literature; however, the reviewed measures are some of the most common and well-respected in the field (Tredoux et al., 2009). They also characterize the two main conceptual approaches to assessing inter-ethnic relations: measurement of attitudes and behavior. To describe the findings produced by these measures in detail would have involved tangential and often quite tangled discussion. However, there are some key findings that the majority of the literature is in agreement on. These widely unanimous conclusions provide valuable context for the development of a new measure of inter-ethnic relations:

- Children as young as 4 are capable of possessing ethnic awareness (Aboud, 2008; Bonvillain & Huston, 2000; Connolly, 2011; Williams, Best, & Boswell, 1975).
- In middle childhood (ages 7-11), blatant and explicit prejudices are less commonly expressed than subtle forms of prejudice (Fernández-Castillo, 2008; Hamberger & Hewstone, 1997; Sarafidou, Govaris, & Loumakou, 2013).
- In multi-ethnic schools with a clearly defined majority group population, minority group children are often less popular according to sociometric tests and exposed to higher levels of ethnically motivated bullying. There is also a widespread tendency towards in-group friendship circles, often referred to as 'friendship homophily' (Bellmore, Nishina, & Graham, 2011; Davey & Mullin, 1982; De Tezanos-Pinto, Bratt, & Brown, 2010; Griffiths & Nesdale, 2006; Larochette, Murphy, & Craig, 2010; Meisinger, Blake, Lease, Palardy, & Olejnik, 2007).
- Minority group children are as likely to be the perpetrators of ethnically motivated aggressive behavior as majority group children, particularly in environments with high minority populations (Durkin et al., 2012; Eslea & Mukhtar, 2000b; Larochette et al., 2010; Tolsma, van Deurzen, Stark, & Veenstra, 2013).

The current study will build upon the findings generated from these measures and also upon the technical aspects of the measures themselves. The strengths and weaknesses of the existing instruments provide a foundation from which a new psychometrically reliable and valid

measure can be constructed. This chapter goes on to present the relevant literature and measurement theory which informed the development of the new, child-centred measure of inter-ethnic relations.⁸ For ease, the literature is arranged by sub-aims of the current project's main objective.

2.2 - BUILDING A COHERENT FRAMEWORK

In order to build a measure of inter-ethnic relations that is applicable for both researchers and practitioners, the structure of the measure must be straightforward, widely interpretable, thorough, and coherent. While achieving proper validity and reliability is vital, if the measure does not 'make sense' to non-academic professionals, it will never see a practical application in the real world. Thus, the construction of a coherent framework that reflects the authentic nature of the child's world was critical.

A broad review of available literature that explores children's inter-ethnic relations reveals a lack of coherence and standardization with regards to measurement selection. While there are many different approaches when assessing inter-ethnic relations among children, there are two distinct methods of measurement selection that stand out in the literature. Both of these approaches are routine and both reflect a need for a more organized, broad and cohesive approach to measurement selection.

THE SOLE MEASURE APPROACH

Many studies that quantitatively measure children's social relations and/or inter-ethnic relations are narrow in scope. Typically, these studies strive to measure a specific construct such as "friendship level" but do so by relying on one or two items of a measure. For example, a recent Danish study on anti-immigrant sentiments in the classroom assessed inter-ethnic peer relations by asking students to list three students who they 'liked' followed by three students who they 'disliked' (Wagner, Camparo, Tsenkova, & Camparo, 2008). The results of this measure were then used as indicators of the status of inter-ethnic relations and migrant attitudes within the classroom. Aside from the large conceptual jump from disliking to subtle prejudice, this approach is also problematic in that it relies solely on one question as a variable predictor.

Another commonly used sociometric friendship assessment is the 'strong friendship' measure, which instructs children to list their 'best friends' and then cross-compares the list to determine

⁸ One comprehensive book on scale construction and psychometric evaluation was heavily relied upon in the current study. See Furr (2011) for a full discussion of good practice scale construction and evaluation.

inter-ethnic friendships. Several studies have used this measure as an indicator of inter-ethnic relations among children (Bellmore et al., 2007; Feddes, Noack, & Rutland, 2009a; Hansell & Slavin, 1981; Jackson, Barth, Powell, & Lochman, 2006; Kiesner, Maass, Cadinu, & Vallese, 2003; Quillian & Campbell, 2003). These narrow guidelines for identifying friendship and exclusion raise a series of concerns. For one, while sociometrics are a well-respected and frequently used method of measuring children's peer relations, findings are invariably affected by an individual child's propensity for this type of questioning (Poulin & Dishion, 2008). Furthermore, these broad questions leave ample room for individual interpretation in the answering process. Children's friendships are complex and often fluid. Children have friends that they enjoy playing sports with and friends that they enjoy studying with and friends that they confide in, etc. Different friends may serve different roles within the life of the child. When asking children who they 'like' best, researchers gather no contextual information regarding how children interpret and process the question. Furthermore, it does not account for the widely reported fluidity that occurs in children's friendship networks. Who a child is 'best friends' with today, is not necessarily who they were 'best friends' with yesterday (Ahn, 2011; Bowker, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2006). Furthermore, this narrow approach to peer relations does not account for the many other ways that positive or negative inter-ethnic relations can manifest in children's social worlds. For example, children might not be 'best friends' across ethnic boundaries but might still engage in friendly contact during school time. Also, suggesting that the absence of cross-ethnic 'best friendship' indicates problematic inter-ethnic relations or racial attitudes is large conceptual leap.

Moreover, these constricted measures do not account for the unique dimensions of friendship that may exist in new migrant communities. Some multi-ethnic schools accommodate children from a variety of different neighborhoods and socio-economic and cultural backgrounds. Often times, migrant families in urban environments settle in communities that are populated with other migrants rather than into an established neighborhood of 'local' families (Byrne, McGinnity, Smyth, & Darmody, 2010). Due to geographic area, language barriers, parental social networks and different out-of-school time activities, new migrant children often do not socialize with multigenerational children outside of school (Curry et al., 2011). These contextual factors play a large role in shaping children's peer relations in new migrant communities. Using friendship measures exclusively as indicators of children's inter-ethnic relations could result in an oversight of the sometimes 'unconventional' or school-based inter-ethnic relationships that may exist. They also fail to illustrate the contextual details that influence friendship choice and the development of peer relationships, increasing the risk of misrepresenting the nature of inter-ethnic relations between children.

Relying on one item (i.e. who are your best friends?) does not allow for a representative, nuanced picture of inter-ethnic relations to emerge. It fails to acknowledge the varying types of 'inter-ethnic relations' that occur in a child's multi-faceted environment on a regular basis. While inter-ethnic friendship is undeniably one indicator of inter-ethnic relations, it is not the sole indicator of inter-ethnic relations. Similarly, while ethnic harassment represents one aspect of inter-ethnic relations, it is also not the defining element of the construct. To effectively explore inter-ethnic relations, researchers must employ a broad approach that accounts for the many varying types of positive or problematic relations that may occur a new migrant community to allow for children's peer relationships to be interpreted in a nuanced and refined manner.

THE MANY MEASURES APPROACH

Conversely, some studies adopt a 'many measures' approach to instrument selection. While these studies aim to capture a broad range of inter-ethnic dimensions, the measurement selection technique tends to be 'ad hoc'. They are broad and comprehensive but often lack cohesion and a clearly defined rationale behind the selection of their scales (Aronson & Brown, 2013; De Tezanos-Pinto et al., 2010; Schiefer, Möllering, Daniel, Benish-Weisman, & Boehnke, 2010). For example, a recent study on the effects of cooperative learning on intergroup relations in the classroom employed four self-developed attitude scales and one sociometric measure to assess intergroup relations (Bratt, 2008). The study aimed to take a comprehensive approach to intergroup relations. However, the 'grab-bag' method of scale selection draws the completeness of the data into question. There is no rationale provided for the measurement selection and no detailed explanation of the instruments and items. Researchers who aim to build off of the study are left questioning the motivation behind the selection of measures and also, the extent to which the selected scales actually quantify the construct. Concerns can be raised regarding the coverage of the scales and whether or not these scales are exhaustive. Furthermore, the approach relies on several different instruments to assess one construct but provides no additional information as to exactly what the scales are measuring. Do the scales overlap? Are they measuring the same dimension of the construct? By failing to provide a coherent structure to the selection of measures, the findings produced by a study can be drawn into question and the measures themselves are left largely unemployable by other researchers. Readers are left wondering exactly which dimensions of inter-ethnic relations these tools were meant to assess.

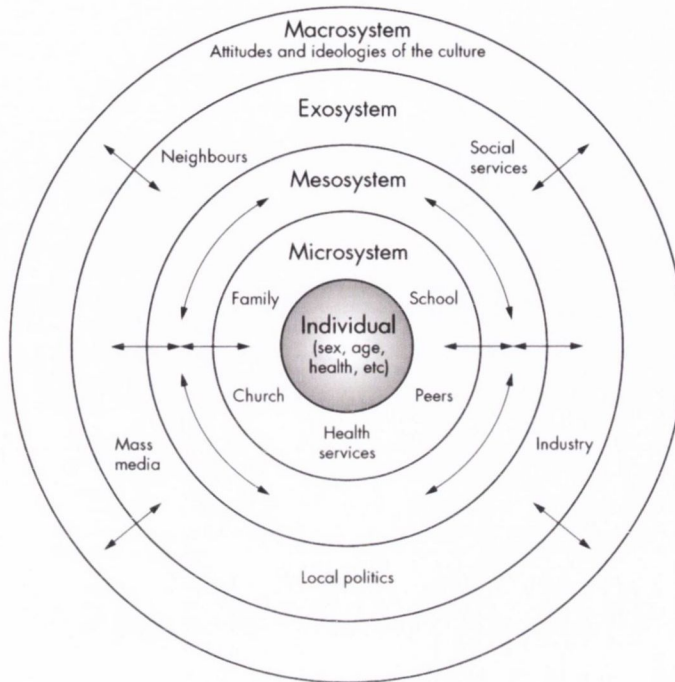
The two provided examples are representative of a larger trend of restricted or incoherent measurement selection within the field of children's inter-ethnic relations. Some studies rely heavily on one previously 'validated' measure while other studies gather measures in a broad

but often unexplained manner to address the specific concerns of their particular research question. Rather than rely heavily on a sole measure or an 'ad hoc' collection of measures, this study aimed to produce a coherent and comprehensive set of measures that was both broad and cohesive, organized around a structure that accounts for the realities of the child's world.

THE ECOLOGICAL MODEL

Urie Bronfenbrenner's Ecological Model of Child Development presents a framework upon which this study assembled a broad and coherent set of measures to assess children's inter-ethnic attitudes and behaviors. Bronfenbrenner's theory argues that it is unfeasible to research children without considering the contextual environments within which they are developing. According to the theory, all children mature within a series of interactive environmental systems: Microsystems, Exosystems, and Macrosystems. A microsystem refers to the immediate environment within which a child lives: family, school, peers, church group, etc. The exosystem involves the relationships, systems, and influences that are still present in a child's life but slightly more removed such as extended family, family friends, neighbors, and social services. The macrosystem represents the overarching cultural environment within which the child develops. Bronfenbrenner's model emphasizes the complexity of the developmental process and the emergent, non-determined path that development takes depending on a variety of personal, familial, historical and cultural contingencies. In this model, children are the center of their worlds and are continuously engaging in a variety of proximal processes and dynamic, reciprocal interactions with other people and their environments. They are not passive in their development. Rather, they are actively influencing the immediate systems within which they are embedded. A visual representation of the Ecological Model is presented in Figure 2, illustrating the embedded layers of a child's environment.

Figure 2: Bronfenbrenner's Ecological Model of the Child



(McLaren & Hawe, 2005)

This model is particularly suited to provide a structural framework for research on inter-ethnic relations among children and youth (Hong & Espelage, 2012; Larochette et al., 2010; Sabatier, 2008). By placing the developing child at the center of a set of interactive environmental systems, the model proposes that factors such as a child's ethnicity, skin color, or native language are inextricably linked to how that child interacts with all of the various contextual systems in his or her world. It follows that a child's ethnicity plays an on-going role in the development of peer relations. These peer relationships will also be influenced by broader systems including the school, the neighborhood, the family, religion, and the attitudes and ideologies of the culture at large. Since all parts of the model are interactive, the child also reciprocally influences these systems. It is impossible to remove any one element from the all-encompassing, interdependent system. Children's inter-ethnic relations cannot be extracted from the contextual factors that influence them or from the various environments within which they occur. Ethnicity cannot be removed from the child and studied separately. In this model, research on ethnicity and inter-ethnic relations must be approached from a standpoint that acknowledges the influence of the broad, holistic scheme of interactive, contextual factors at work in the child's world.

Rather than test Bronfenbrenner's theory of child development, the study relied upon the model as a framework and an organizational tool. In setting out to develop a measure that accounts for the various environmental factors that influence children's inter-ethnic relations, the model

served as a broad and coherent framework within which individual variables could be assembled and structured. How the specific variables and measures fit into the overall ecological model will be discussed in Chapter Three.

2.3 - A CHILD-CENTRED RESEARCH APPROACH

RECOGNIZING THE 'ACTIVE' CHILD

One cornerstone of the current research was the belief that in order to gain accurate information about a child's life, researchers must consult children directly through methods that are child-centered and age-appropriate. While this concept might appear self-evident and straightforward, it has only recently been adopted as a method of good practice within the social sciences due to a paradigm shift in child development studies.

For the better part of the 20th century, child development and social sciences focused on childhood solely as a period of growth rather than a period of actual substance. Mainstream developmental theorists highlighted the intrinsic elements of child development, adopting a positivistic approach and assuming that there was an objective reality to childhood that could be accessed, measured, and interpreted (Greene & Hogan, 2005; Hogan, 2005). Within this conviction, childhood was viewed as a series of fixed, universal stages that all children passed through on the road to becoming adults. Children were seen as largely passive in this process, beholden to universal, pre-determined laws of development and divorced from the contextual environments within which they lived. Theorists based their research on the fundamental idea of the context-free, predictable child and paid little or no attention to their subjective worlds and experiences (Christensen & Prout, 2005).

By the late 1970s, childhood studies began a major shift towards recognizing and accounting for the importance of contextual factors within the world of the child. This shift reconsidered the idea that childhood is a universal construct and allowed for the subjective, multifarious aspects of childhoods to be considered (Greene & Hogan, 2005). The idea of the active and engaged child replaced the notion of the 'passive' child who is out of control of his or her developmental process (James & Prout, 1997). The 'active' child, rather, is regularly interacting with various ecological systems and is influenced by contextual factors, but also actively influencing his or her surrounding environment. This reciprocal relationship between the child and his or her broader environment is now widely accepted in modern day sociological research (Tisdall & Punch, 2012; Uprichard, 2008). The reframing of children as 'active beings' instead of 'becomings' has impacted the way that child-focused research is conducted. Children are now

widely treated as a part of the research process rather than merely object of academic inquiry (Christensen & James, 2008; Greene & Hill, 2005; Greene & Hogan, 2005).

This acknowledgement of the 'active' child is central to the current study. It serves as fundamental precursor to conducting child-centred research, as it recognizes children's ability to reflect meaningfully on their worlds and experiences (Crivello, Camfield, & Woodhead, 2009). Researchers must acknowledge that children are capable of participation and are able to provide data that is accurate, rich, and informative. However, in order to effectively and ethically access that information, researchers also must present children with measures that are both child-centered and age-appropriate (Greene & Hogan, 2005).

ADULT DISCONNECT

While adults' observations on children's attitudes and behaviors can be insightful, research has demonstrated that there can be large discrepancies between adults' perceptions of children's experiences and children's own accounts of their feelings, attitudes, and behaviors. This has been found to be particularly true with regards to problematic social relations. For example, a large quantitative study by the Canadian Public Health Association compared accounts of 562 parents and students about bullying behavior in school. The study found very strong differences between children's accounts of problematic social behavior and parents' accounts of problematic behavior, including the frequency of bullying and harassment as well as the nature of the occurrences. Parents underestimated the amount of harassment happening in schools and were misinformed as to where and when bullying and harassment were taking place.

Qualitative aspects of the study found that children intentionally withheld information from their parents about their behavior, both as victims and bullies

(Totten, Quigley, & Morgan, 2004; Totten, 2005). Similar results have been found in studies in the United States, where parents under-reported bullying behavior, particularly when it was their own children doing the bullying (Holt, Kaufman Kantor, & Finkelhor, 2008). In the Irish context, results from the Growing Up in Ireland study also mirrored these findings. A total of 40% of nine year olds reported experiencing bullying at school while only 24% of parents reported the same (Williams et al., 2009).

The literature points to a few reasons why children withhold information about their peer relationships from their parents. Some children downplay problematic relations because they fear that telling their parents will provoke parental involvement at the school level and will ultimately lead to retaliatory behavior from the aggressor (Matsunaga, 2009; Novick & Isaacs, 2010). Others may cope with the traumatic experiences by denying its occurrence in an attempt to minimize the pain. This is particularly true of individuals who experience ethnic harassment

(Carter, 2007). Regardless of the motivation for under-reporting and minimizing, there is evidence of dramatic dissimilarity between parents' accounts of their children's peer relations and children's own accounts.

The discrepancy between adults' perceptions and children's experience extends beyond the parent-child dimension. Research demonstrates inconsistency between teachers and children with regards to definitions of problematic peer relations, as well as frequency of problematic incidents. Studies have shown a discrepancy between what teachers and children define as bullying behavior (Maunder, Harrop, & Tattersall, 2010; Naylor, Cowie, Cossin, de Bettencourt, & Lemme, 2006). Furthermore, teachers may also be susceptible to under-reporting instances of problematic social relations in their classrooms and schools. The Canadian Public Health Association study found that in addition to under-estimating the prevalence of bullying behavior and ethnic discrimination in their school, teachers also were misinformed regarding the location of bullying, name-calling, and harassment. Teachers believed that 75% of problematic behavior occurred in the hallways of schools, in the gymnasium or on the yard. Students, on the other hand, reported that the majority of problematic behaviors took place in the classroom when the teacher was not present or after-school. The inconsistency was particularly strong with relation to incidences of classroom bullying. A total of 60% of high school students and 40% of students in grades 4-7 reported that the classroom was the location where bullying and harassment occurred most frequently. Only 20% of teachers reported the same (Totten, 2005). In the UK, a study of racist bullying in primary schools found that teachers overestimated the prevalence of many types of bullying including cyber-bullying and technology-based bullying, but downplayed the occurrence and severity of ethnic bullying and racialized name calling (Qureshi, 2011). There were discrepancies between what teachers perceived to be playful banter and what children interpreted as problematic harassment.

The demonstrated gap between children's accounts of their social relations and adults' perception of children's social relations can be described as a "disconnect" between two worlds. Despite daily interaction between adults and children, teachers and parents are often oblivious to certain dimensions of children's peer interactions. This disconnect can be attributed to the private and often inaccessible nature of the 'child's social world' (James, Jenks, & Prout, 1998). Evidence of the disconnect has serious implications for child-based research. Specifically, reporting findings about children based on adults' accounts opens the research to justifiable queries regarding validity and precision. To effectively report on children's lives, researchers must consult children directly through child-centred research measures.

ACCESSING THE CHILD'S SOCIAL WORLD

The 'child's social world' is a setting within which children interact freely beyond the gaze of adult supervision. This social world is not necessarily defined by physical space. Rather, it is characterized by a series of norms and practices which are woven into the day to day life of children (Devine, 2002; James et al., 1998). During moments of unrestricted socialization, this environment is alive as children engage openly with one another in their developing world of interpersonal relations (Connolly & Keenan, 2002; Howes & Lee, 2006). Peer relationships within the child's world are governed by their own set of rules and regulations and often include "fluctuations along a continuum of inclusion and exclusion" (Curry et al., 2011).

Accessing the child's social world presents a series of methodological hurdles for researchers. For one, the social world that children operate within is not the same world that adults operate within (James et al., 1998). While children are active social agents, there is still a clearly enforced separation between adults and children, with adults typically maintaining control over certain elements of children's lives. Children are continually subjected to a host of strictly enforced guidelines and regulations that are not imposed upon adults. Adult control over certain elements of children's lives contributes to the conceptual gap between the adult world and the child world for both parties. This is particularly true when discussing the life of the school. For children, school is an environment of extremely ordered, adult-controlled learning and socialization. The components of adult control are inherent in the structure of the organization (i.e.: scheduling, curriculum, dress codes, disciplinary infractions, required attendance, temporal regulations). The gap between worlds is further compounded by the patronizing view that some adults adopt towards children's socialization, believing that it is characterized by simplicity and immaturity (Punch, 2002). Mechanisms of control and perceived developmental superiority lead some adults to interpret the child's world at face value or to overlook it entirely, thus rendering children's opinions and experiences 'invisible' (James & Prout, 1997). These commonly held misconceptions reinforce the need for child-centered research to highlight the complexity and significance of the child's social world as determinates of children's overall well-being.

In an effort to access the child's world and capture the 'child's voice', a myriad of inventive, child-centred methodologies have emerged (Beazley, Bessell, Ennew, & Waterson, 2009; Beazley et al., 2011). These methods are qualitative in nature and often involve in-depth interviews, focus groups, or creative methods such as art projects or storytelling (Clark, 2004; Einarsdottir, Dockett, & Perry, 2009; Hill, 2006; Johnson, Pfister, & Vindrola-Padros, 2012; Jorgenson & Sullivan, 2009; Mitchell, 2006; Veale, 2005; White & Bushin, 2011). However, methods are limited by the same methodological trappings of qualitative research in general;

they are limited in scope, demanding of resources, difficult to replicate, and lack generalizability (Bryman, 2012). Thus, there are times when it is necessary to examine children's lives on a larger scale, using quantitative methods to access larger populations.

As such, there is a demonstrated need for *child-centered* quantitative data on children's inter-ethnic relations. Much of the available quantitative data on the topic is based on research conducted with adult populations (Pachter & Coll, 2009; Priest et al., 2013; Smyth et al., 2009). Relying on adult's accounts of children's experiences undermines the child's ability to actively participate in the research process. It also results in incomplete and misconstrued data due to the disconnect between the adult and child world (Williams et al; 2009). In addition to involving children directly in the research process, it is also vital that they are included in a way that is meaningful and respectful of their own cognitive and behavioral development. Measurement tools must be age-appropriate and proven valid for use with children of a particular age group. Relying on measures that have been tested and validated with adolescents or adults can be unethical and may result in data that does not accurately reflect the experiences of younger children. With these points in mind, this study aims to develop a quantitative measure of children's inter-ethnic relations that is *child-centered and age-appropriate*.

The development of a child-centered quantitative measure of inter-ethnic relations presents true challenges. Researchers must construct a measure that children can comprehend and relate to, that has regard both their cognitive development and social culture. The private nature of the child's social world makes it difficult for researchers to construct measures that are relevant *and* respectful, interesting *and* informative. However, developing a child-centered measure that participants, researchers, and applied practitioners find approachable is vital. The measure must be broad, cohesive and coherent. It must speak to the realities of the child's world. It must be child-centered and cognitively appropriate. These are all crucial conceptual requirements. However, the measure must also adhere to strict psychometric guidelines including sensitive reliability and robust validity. Achieving these psychometric standards is technically challenging but essential to the successful realization of the measure.

2.4 - RELIABLE AND NUANCED: AN ITEM RESPONSE THEORY APPROACH

To quantitatively assess inter-ethnic relations among children, one must operate from an assumption that inter-ethnic attitudes and behaviors can be captured and measured. Furthermore, one also accepts that there will be differences between children in terms of their inter-ethnic attitudes and behaviors and that this variability is capable of being measured. The degree to which the measure is free from error and is capable of yielding consistent results over time is referred to as *reliability*. The vast majority of quantitative social studies rely on a

Classical Test Theory (CTT) approach to establish reliability. In developing a measure of inter-ethnic relations among children, this study will rely on an Item Response Theory (IRT) approach to establish reliability, a method that has been increasingly recognized as theoretically and methodologically more sophisticated than Classic Test Theory (CTT) and particularly valuable for use with child-based studies. Before describing the strengths of using IRT to establish reliability, one must be first be familiar with the traditional approach of CTT and the ways in which the two approaches differ.

CLASSICAL TEST THEORY – THE TRADITIONAL APPROACH TO RELIABILITY

Classical Test Theory has long been the traditional basis of reliability in the social sciences. It provides a foundation for scale construction, measurement, and psychometric evaluation (Furr, 2011). In CTT's approach to reliability, a respondent's real level on a particular construct (ex: self-esteem) would be referred to as their 'true score'. It is impossible, however, for any measure to accurately capture someone's 'true score' due to limitations in measurement and human error. The extent to which external conditions or measurement faults contribute to differences in observed score is referred to as 'measurement error'. Therefore a person's score as reflected by a given measure is referred to as an 'observed score' which consists of a sum of their 'true score' and 'measurement error'. According to CTT, a measure's degree of reliability is dependent on two things: "the extent to which differences in test scores can be attributed to real inter- or intra-individual differences and the extent to which such differences are a function of measurement error" (Furr 2008).

CTT makes a very important assumption about measurement error that ultimately sets it apart from IRT, namely that measurement error is random. In other words, measurement error is as likely to inflate one participant's score as it is to deflate the participant's score. It follows then that measurement error is independent of an individual's true score and uncorrelated with individual's true score. Following the statement that an individual's observed score is the sum of their true score and measurement error score, CTT argues that "the total variance of observed scores from a group of individuals will equal the sum of their true score and error score variance" (Furr, 2011).

With this theoretical underpinning, there are a variety of ways of establishing reliability within CTT. The most widely used approach is establishing internal consistency within a measure. Internal consistency is based on the idea that different parts of a test can be treated as different forms of a test. Among internal consistency methods, one of the most widely used approaches is the Cronbach's Alpha coefficient. The pervasive use of the Alpha test to establish reliability is most likely dependent on two practical factors: 1) most statistical programs produce alpha

coefficients, making it easy to calculate, and 2) conducting an alpha tests requires significantly less effort than other methods of obtaining reliability such as a test/re-test method (Furr, 2011).

The use of Classical Test Theory and internal consistency reliability tests in the social sciences is well established. It has been the preeminent approach for quantitative studies for many years and there is widespread acceptance of these methods as substantial and scientific. Among many psychometricians, however, it has been argued that social sciences do not place enough importance on the establishment of proper test reliability. A gradual shift began among psychometricians to establish and employ more theoretically and methodologically advanced approaches to both measure design and data analysis (Furr 2011). Over the past few decades, Item Response Theory has rapidly become recognized as psychometrically and theoretically more sophisticated than the traditional CTT approach.

ITEM RESPONSE THEORY: AN INTRODUCTION

The Quiet Revolution

The benefits of IRT are well noted within the field of advanced statistics and psychometrics (Embretson & Reise, 2013; Embretston & Reise, 2000; Furr, 2011; Furr & Bacarach, 2008; Reise, Ainsworth, & Haviland, 2005; Watson et al., 2012). Despite the many theoretical and methodological benefits, IRT receives relatively little attention within the broader social science literature. What is most interesting about the lack of discussion on the benefits of IRT is that in practice, there has been an overwhelming and 'silent' shift towards IRT. This largely unseen movement away from CTT towards IRT has been referred to as the 'quiet revolution' of IRT (Embretson & Reise, 2013). The quiet IRT revolution arguably began with the use of large-scale educational assessments such as the Standardized Aptitude Test (SAT) and the Graduate Records Exam (GRE), both of which have shifted from CTT to IRT approaches. In addition, several individual intelligence tests, personality tests, attitude measures, and behavioral ratings also apply IRT approaches (Embretston & Reise, 2000). Over the past two decades, IRT models have almost wordlessly become mainstream in the fields of education and psychology.

There are several practical explanations for the 'quiet' nature of the IRT revolution. One important reason could be the pervasive nature of CTT within academia and higher education. Given the long-standing history of the CTT approach in social sciences, the majority of statistical textbooks and college courses teach CTT. There are relatively very few texts or courses that address IRT at a university level (Furr & Bacarach, 2008). Similarly, the majority of widely used statistical programs (SPSS, Stata, SAS) focus on CTT tests and functions. Only recently have add-ons been developed to incorporate IRT models into mainstream statistical software. Furthermore, the CTT approach is easier to comprehend and to implement on a practical level.

Seeing that CTT is still considered an acceptable approach for establishing reliability of a study, many researchers may choose it because it is familiar and more user-friendly than IRT (R. M. Furr, 2011). Another possible reason for the use of CTT could be that many researchers are unfamiliar with the theoretical and methodological benefits of employing an IRT approach (Embretson & Reise, 2013). The 'quiet' nature of IRT and the relative lack of educational and professional development opportunities in the subject matter perpetuate the research community's lack of familiarity with the topic. Finally, the advanced psychometric nature of IRT could appear daunting to researchers who are uncomfortable with advanced statistics. The learning curve associated with operating IRT-specific software is steep compared to some programs employing CTT methods.

Guttman Scaling: The Foundation for IRT

Before discussing the theoretical, practical, and beneficial qualities of an IRT approach, it is important to understand the foundational scaling model that influenced its development. Guttman scaling was introduced in 1949 as an alternative to existing scaling methods. Traditional scales in psychology and the social sciences (e.g. Likert Scales, Thurstone Scales) assess dimensions of an underlying construct by asking respondents to answer questions with a series of numerical response categories (ex: 1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree). Items are then analyzed individually or summed into a total score. A criticism of this type of scaling is that it provides little context for participants when making judgments on these statements. How does a person distinguish between, say, agree and strongly agree? It is likely that individuals will vary in their interpretation and distinction of these categories. Guttman sought to offer an alternative to traditional scales by providing context through the arrangement of the items. He argued that if items are arranged in a particular way, the scale becomes more interpretable to participants and the data produced is more functional for researchers (Wilson, 2013).

Guttman attempted to do this by arranging items related to a specific construct in order of intensity. The underlying argument of this approach is "if person endorses a more extreme statement, he should endorse all less extreme statements" (Guttman, 1949). Items range in terms of difficulty and are presented hierarchically on a scale. In theory, if an individual endorses the most 'extreme' statement on the scale, he/she should have also endorsed all less extreme statements as well. Consider the items presented in Figure 3. It is likely that if you are willing to keep a cat as a pet, you would also be willing to be in the same room as a cat.

Figure 3: Items in from a Sample Guttman Scale in Hierarchical Order

1. I would be in the same house as a cat.
2. I would be in the same room as a cat.
3. I would pet a cat.
4. I would keep a cat as a pet in my house.

To satisfy the criteria of a perfect Guttman scale, there must be no violations of the hierarchy established by the items (Guttman, 1949; Wilson, 2013). In other words, all respondents must adhere to the structure of ‘intensity’ set out by the scale in their response pattern. Table 3 shows fictional responses satisfying the requirements of a perfect scale. The table shows that as items increase in severity, positive responses decrease.

Table 2: Sample Item Responses Representing a Perfect Guttman Scale

Item	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5
1	No	Yes	Yes	Yes	Yes
2	No	No	Yes	Yes	Yes
3	No	No	Yes	No	Yes
4	No	No	Yes	No	No

While Guttman’s approach to scaling works in theory, it is less likely to work in practice as it relies on an unrealistic expectation of response behavior. Some respondents are bound to break the structure of the hierarchy for reasons unrelated to the underlying latent trait; responses may be influenced by participant’s mood, their subjective interpretation of the item, or social desirability bias (Kempen, Myers, & Powell, 1995; Nederhof, 1985). A major shortcoming of this model is that it does not analyze response patterns fully, opting to ascribe deviation from the pattern to random error. Alternatively, item response theory allows for the human element to enter into Guttman style scaling by creating a probabilistic framework for measuring underlying traits or constructs.

Item Response Theory

Item response, or latent trait theory, argues that a participant’s response to a question is influenced by two factors: the individual’s relationship to the construct as well as the qualities of the item itself. The first factor, the person’s standing on the construct being measured, can be assessed by the individual’s response to an item measuring the construct. For example, if a child is answering questions on a ‘perceived discrimination’ scale, his or her responses are presumably influenced by his or her levels of perceived discrimination. Based on their score,

the respondent is given a 'trait level score' (θ) which is an indicator of his or her level on the construct being measured.

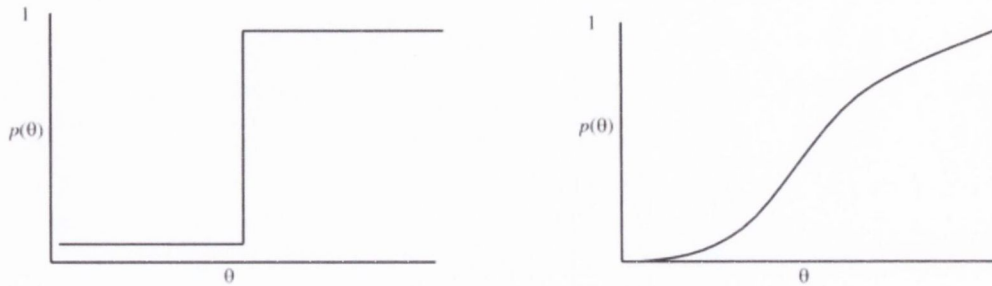
IRT also posits that in addition to the participant's own relationship to a construct, the level of 'difficulty' or 'severity' of an item will also impact the participant's response. Consider two items on a scale of contact: 1) "I talk to migrant children in school" and 2) "I invite migrant children to play at my house". The second statement is more 'intense' than the first statement and only someone with high levels of contact would endorse the second item. Therefore a higher level of the construct would be required for someone to support that item (Embretson & Reise, 2013; Embretson & Reise, 2000). While trait level and item difficulty are separate issues, they are intrinsically connected, as item difficulty is conceived in terms of trait level (Furr & Bacarach, 2008). In other words, higher difficulty level items require higher trait levels in order to be endorsed by a respondent.

Just as items on a measure may differ in terms of difficulty, items on a test may differ in terms of their ability to distinguish between respondents based on their trait level. This is referred to as 'item discrimination' or 'sensitivity' (Furr & Bacarach, 2008). In a sense, it reflects an item's ability to distinguish between respondents with high trait levels from those with low trait levels. Item difficulty levels, trait levels, and item discrimination levels all contribute to IRT's ability to gauge psychometric properties of individual items and scales.

While similar to Guttman style scaling in its recognition of 'degrees of difficulty', IRT adopts a different approach to the interpretation of 'irregular' item response patterns. In the traditional Guttman approach, the scale is deterministic and considered imperfect if respondents endorse items out of order. IRT models, on the other hand, take a stochastic approach and assume random or probabilistic deviations from a Guttman style scale (van Schuur, 2003). When presented with a test item, there is a certain probability that an individual will answer the question in a positive way, depending on the individual's trait level and the test parameters. In the instance of a typical test item, the probability will be small for individuals with a low trait level and will be large for individuals with a high trait level. In dichotomous models of IRT, probability as a function of ability can then be plotted along an S-shaped curve, with low trait levels having a probability of close to zero and with high trait levels having a probability of close to one. This S shaped curve is known in IRT as the 'item characteristic curve' (ICC) or 'item response function' (IRF) and is central to the theory behind IRT (Baker, 1985). Figure 4 graphically represents the fundamental difference between Guttman style scaling and IRT scaling. In a deterministic Guttman approach, the relationship between an item and the latent trait is represented by a sharp, incremental increase. In a probabilistic IRT approach, the

increase is smooth and gradual, allowing researchers to plot individuals along the curve based on latent trait ability.

Figure 4: Item Response Function of a Perfect Guttman Scale (left) and an IRT Item Characteristic Curve (right)



The item characteristic curve is defined by two fundamental properties: the difficulty of the item and the ability of the item to discriminate between individuals with low trait levels and high trait levels. If the curve is particularly steep in the middle, it is more adept at discriminating between individual respondents. If it is more gradual, it is less able to discriminate. This ability to discriminate between individual test items as well as between individual test takers is what sets IRT apart from CTT, allowing for a more nuanced and sensitive analysis of quantitative data (R. M. Furr, 2011).

BENEFITS OF AN IRT APPROACH IN RESEARCH WITH CHILDREN

IRT's approach to measurement and analysis differs in many ways from the traditional approach of CTT. As a result, IRT follows a new set of measurement rules that are psychometrically more advanced than CTT. Table 4 presents the 'old rules' of CTT alongside the 'new rules' of IRT.

Table 3: Rules of Measurement (Embretson & Reise, 2013)

<i>The Old Rules of Measurement (CTT)</i>
Rule 1. The standard error of measurement applies to all scores in a particular population.
Rule 2. Longer tests are more reliable than shorter tests.
Rule 3. Comparing test scores across multiple forms is optimal when the forms are parallel.
Rule 4. Unbiased estimates of item properties depend on having representative samples.
Rule 5. Test scores obtain meaning by comparing their position in a norm group.
Rule 6. Interval scale properties are achieved by obtaining normal score distributions.
Rule 7. Mixed item formats leads to unbalanced impact on test total scores.
Rule 8. Change scores cannot be meaningfully compared when initial score levels differ.
Rule 9. Factor analysis on binary items produces artifacts rather than factors.
Rule 10. Item stimulus features are unimportant compared to psychometric properties.

The New Rules of Measurement (IRT)

- Rule 1. The standard error of measurement differs across scores (or response patterns) but generalizes across populations.
 - Rule 2. Shorter tests can be more reliable than longer tests.
 - Rule 3. Comparing test scores across multiple forms is optimal when test difficulty levels vary between persons.
 - Rule 4. Unbiased estimates of item properties may be obtained from unrepresentative samples.
 - Rule 5. Test scores have meaning when they are compared for distance from items.
 - Rule 6. Interval properties are achieved by applying justifiable measurement models.
 - Rule 7. Mixed formats can achieve optimal test scores.
 - Rule 8. Change scores can yield optimal test scores.
 - Rule 9. Factor analysis on raw item data yields a full information factor analysis.
 - Rule 10. Item stimulus features can be directly related to psychometric properties.
-

The measurement rules and analysis techniques of IRT are particularly beneficial when designing a reliable measure for use with children. Arguably, the most applicable benefit for developing a child-centered measure involves test length and reliability. While in CTT, longer tests are always more reliable due to internal consistency tests, shorter measures in IRT can be more reliable than longer tests (Embretson & Reise, 2013). As the present study aimed to develop a child-centered measure that respects children's cognitive and behavioral development, it was valuable to avoid long pen and paper scales when possible as they have been shown to be less child-friendly than shorter quantitative measures (Morrow & Richards, 1996; Scott, 2000a). Furthermore, in IRT modeling, a participant's true position on the latent variable is not dependent on specific set of items administered, while the measurement properties obtained are not dependent on the sample studied. This eliminates the circular dependency of CTT, allowing for more robust test reliability. Inconsistent reliability among existing measures of children's inter-ethnic relations demands a more rigorous standard of reliability when exploring these issues (Pachter & Coll, 2009; Tredoux et al., 2009).

Moreover, CTT reliability analysis and factor analysis assume equal frequency distributions of items included in a scale. The IRT approach, on the other hand, claims the opposite. IRT models are specifically designed to have varying frequencies, as the items are selected for scale inclusion based on difficulty and discernibility. When measuring degrees of inter-ethnic contact among children, it is crucial to employ a statistical model that will allow for variation and irregular distributions. It is exactly this type of variability that the measure aims to capture. Relying solely on CTT methods of reliability for these items could lead to misrepresentation and faulty scale development (van Schuur, 2003).

The nature of IRT modeling also allows for a more in-depth examination of the individual items and the individual participants, a technique that proved useful when testing a measure for use with children. The approach considers the fact that a particular test might have stronger psychometric qualities for some participants than for others, allowing for a more nuanced analysis of the quantitative data (Furr & Bacarach, 2008). In this respect, IRT is ideal for use with children because it for milieu and variance to enter into the equation in a constructive way. Rather than generalize or summarize standard error, IRT allows researchers to “construct scales that maximally differentiate people from one another, either across the entire continuum or on some critical area of the continuum” (Embretson & Reise, 2013). IRT accepts the joint relationship between person properties and item properties, allowing room for context to work within quantitative measures.

Despite the complicated technical aspects of IRT, the approach has gained significant popularity due to its ability to solve practical measurement problems and theoretically justify measurement principles (Embretson & Reise, 2000). However, the general lack of quantitative research on inter-ethnic relations among children combined with the many social scientists’ unfamiliarity with IRT has resulted in a complete under-representation of the IRT approach in the field. In fact, there has never to our knowledge been a study that has explored children’s inter-ethnic relations using an IRT model. The benefits of the IRT approach when designing a measure for use with children are evident. The current study’s commitment to high standards of psychometric quality benefited from the use of an IRT approach in both the design and analysis stages of the project, as it contributed to a high degree of reliability and provided the tools for a more sensitive construction of the quantitative measures.

2.5 - ROBUST VALIDITY

While reliability is a critical psychometric feature, it is often argued that validity is the most crucial facet (Furr, 2011; Furr & Bacarach, 2008; Parry, 2004). Bateson (1984) explains “no matter how fine a sample design, how high a response rate, how subtle a data analysis, or how interesting a research report, if the survey cases have not been measured validly, the data interpretation is worthless”. From this standpoint, the significance of validity in a quantitative research design cannot be overstated.

VALIDITY THEORY AND THE IMPORTANCE OF VALIDITY

When discussing validity, it is important first to remember that a measure in and of itself cannot be ‘valid’. Rather, it is the use of the measure and the interpretation of the measure’s scores that determine validity (Furr & Bacarach, 2008). When discussing a particular measure, it is

important to remember that the measures scores can be reliable (i.e. good indicators of a construct) but used or interpreted invalidly. Reliability is a prerequisite for validity but validity is not necessary to establish reliability. Another way to distinguish the two psychometric properties is to say that “reliability affects one’s statistical results, and validity affects one’s ability to interpret results in terms of specific psychological phenomenon” (Furr, 2011). According to the Standards for Educational and Psychological Testing published by the American Education Research Association, the American Psychological Association, and the National Council on Measurement in Education, validity can be defined as “the degree to which evidence and theory support the interpretations of test scores entailed by the proposed uses of a test” (1999). Establishing validity is an on-going process that draws on previous uses of a measure as well as a researcher’s own methods of validating the use and interpretation of a measure. It requires a theoretical basis, empirical evidence, and is weighed in terms of strong versus weak, rather than ‘all or nothing’. How a measure is used and how it is valued as ‘meaningful’ or ‘appropriate’ is dependent on a variety of contextual factors.

Within the area of children’s inter-ethnic relations, many studies operate under a statement of established validity but on closer investigation, are building upon weak psychometric properties. The meaning and appropriateness of a scale in one context might differ significantly from the meaning derived from a different context or population and therefore, psychometric standards must be continually re-examined (Furr, 2011). From an ethical standpoint, there are severe implications associated with the improper use of measurement tools, particularly in research with children (Morrow & Richards, 1996; Priest et al., 2013). The inappropriate use of an instrument leads to invalid results, specifically under-reporting or over-reporting of certain types of attitudes or behaviors (Furr, 2011). With regards to children’s inter-ethnic relations, weak validity and inappropriate instruments could result in an under-reporting of ethnic bullying, perceived discrimination, and other negative and potentially harmful behaviors. When researching sensitive topics such as these, the ethical implications of invalid research findings are serious. As discussed earlier, children who are experiencing social problems, bullying, and ethnic harassment may already be inclined to withhold information about problematic interpersonal relationships (Paradies, 2006; Totten, 2005). It is the responsibility of researchers working with children to see that participants are not subject to additional harm while participating in a study. Furthermore, it is a researcher’s ethical responsibility to ensure that the study is working towards its stated aim and that it is presenting findings that are truthful and as scientific as possible. With these points in mind, the development of a measure of children’s inter-ethnic relations that is robust in validity is essential, both in terms of methodological rigor and ethical accountability.

There are three broadly recognized ‘types’ of validity, all of which contribute to the overall validity of a measure: content validity, construct validity, and criterion validity. Construct validity addresses how well a measure performs, based on how it is expected to perform. In other words, does the measure behave like it should theoretically behave? Content validity relates to how well the measure covers the ‘content’ of the intended construct. Criterion validity relates to how well a measure is demonstrably related to the construct in practice.

Contemporary psychometric theory contends that construct validity is ultimately the most crucial. Criterion and content validity both feed into the construct validity; that is, determining whether or not a measure is performing in its expected and intended way (Furr, 2011; Zumbo, 2007)

As such, there are a variety of factors contributing to a measure’s validity. As previously stated, there is not a single statistical indicator of ‘validity’. Rather, a measure has strong or weak validity along a continuum based on comprehensive examination of a variety of factors. Furr (2011) lists five main types of information that can enhance a measure’s overall validity: a) test content, b) internal structure, c) response processes, d) associations with other variables, and e) consequences of use. The combination of these five features contributes to a measure’s degree of overall construct validity, or the degree to which the measure shows the relations that are theoretically predicted for it (Bateson, 1984).

The current study aimed to build robust validity through a variety of techniques embedded throughout the research project: design, data collection, and analyses. The main validity building techniques of the project included: a) cognitive interview pre-testing of items, b) correlations with existing measures and other variables, c) known group predictions and d) corresponding qualitative data. Confirmatory factor analyses were conducted to confirm the underlying factor structure, supplementing overall construct validity.

BUILDING VALIDITY IN THE CURRENT STUDY

Cognitive Interviews

One crucial aspect of validity is whether a respondent’s cognitive processes when answering a question are reflective of the cognitive processes that the researcher envisioned when designing the item (Furr, 2011). To put it more simply, are respondents answering the question that the researcher is intending to ask? Each individual item on a measurement tool presents an opportunity for the researcher to capture an element of a construct. However, every item also presents an opportunity for the researcher to misconstrue a concept or for a participant to misinterpret a question. It is not the actual question that presents an opportunity for miscommunication; it is the researcher’s intention behind the chosen words and the subjective

meanings that participants may associate with particular words or phrases (Clark & Schober, 1992; Parry, 2004).

When conducting quantitative research with children from diverse ethnic and cultural backgrounds, the risk of a miscommunication between researcher and participant is elevated. As previously discussed, the inherent disconnect between the adult's world and the child's world can result in verbal, developmental, and cultural oversights in the research design process. This risk is heightened when researching migrant children, as there is a likelihood of an added cultural difference between researcher and participant (Clark & Schober, 1992; Due, Riggs, & Augoustinos, 2013; Scott, 2000a). If a particular item on a questionnaire is unclear or culturally irrelevant, respondents may make an 'interpretability presumption' during the answering process, understanding the wording of a question in a particular way (Clark & Schober, 1992). While hesitation and ambiguity may exist during their own cognitive process, it does not come across in the final quantitative data. This can adversely affect the integrity of the data and the overall construct validity of the measure (Furr, 2011).

The current study attempted to reduce miscommunication and build validity through a pre-testing process known as cognitive interviewing. Procedures of cognitive interviewing vary widely but the overarching purpose is a direct study of the question-answer process on a survey (Collins, 2003). When faced with an item, participants must first comprehend the question, retrieve the information necessary to answer the question, make a judgment about the information, and finally respond to the question (Drennan, 2003). During cognitive interviewing, the researcher administering a survey asks participants to either think aloud while answering research questions or to describe how an answer was reached immediately after responding. This in-depth focus on both the questionnaire items and the cognitive processes of respondents allows for a variety of potential measurement problems to be identified during pre-testing. Comprehension problems resulting from vocabulary and sentence structure, interpretation differences, and processing difficulties can all be identified through this procedure (Collins, 2003; Drennan, 2003).

Quantitative Validity Testing

A common, yet demanding, statistical method of building construct validity is confirmatory factor analyses. Confirmatory factor analyses (CFA) can be used when researchers have a clear hypothesis about the structure of a measure, namely which items are predicting what constructs and whether or not the constructs are related (Furr, 2011). A scale's internal structure is related to reliability, as evidenced through the common use of internal consistency tests to establish the presence of that psychometric quality. However, internal structure is also

related to validity, as well, as valid interpretation relies upon the recognition and correct interpretation of the variables present in the structure. CFAs are incorporated into this project, but they are not the main analytic approach. This project relies primarily on IRT methods in scale construction. However, the CFAs performed served to confirm the underlying structure of the measures and in doing so, contributed to the overall construct validity of the new measures.

Other methods of building validity include comparing the results of a new measure with evidence from another established measure of the same construct, and comparing the findings from the new measure with known group outcome performances from the literature. These statistical validation procedures build a measure's criterion validity, assessing the degree to which the measure can predict or determine performance or behavior in the real world (Furr & Bacarach, 2008; Kane, 2001). With regards to the current study, criterion validity is built through comparing the results of the newly developed quantitative measures with scores from associate measures of the same construct. In doing so, one is able to determine to some extent the degree to which the developed tool is measuring inter-ethnic relations by comparing convergent and discriminant evidence. Furthermore, the study tests the performance of certain groups with known group performances from the literature. This places the current measure within the literature and also contributes to criterion validity by demonstrating its ability to capture predicted behaviors in the 'real world'.

Validity can also be made more robust through supplementary, convergent qualitative data. Adding a qualitative or observational phase to a project allows researchers to compare quantitative findings with real world behavior. The semi-structured interview is widely accepted as a child-friendly method and is capable of gathering rich, nuanced data from young children, particularly with regards to sensitive subject matters (Irwin & Johnson, 2005). The incorporation of qualitative interviews and participant observation into the pre-testing period provides triangulation for the quantitative findings, allowing for nuanced exploration and convergent validity building.

On the whole, validity is a complex and multi-faceted psychometric property with no final quantitative or methodological guidelines. It is concerned with the "clarification and justification of intended interpretations and uses of observed scores" (Kane, 2001) but as a concept, it can be vague and difficult to 'pin down'. It is established carefully and overtime through a reciprocal relationship between the measured construct and the gathered data. However, despite its amorphous nature, the importance of validity in quantitative research cannot be overstated as it is ultimately an explanation of how a measure has been used, and how a measure should be used (Zumbo, 2007). One way this study aimed to build validity, and

also to contribute to the international literature on inter-ethnic relations in a needed field, was by testing the association between inter-ethnic relations and children's mental well-being.

2.6 - APPLYING THE MEASURE: ASSOCIATIONS BETWEEN INTER-ETHNIC RELATIONS AND MENTAL HEALTH

A broad and coherent, psychometrically valid, child-centered measure of inter-ethnic relations can be employed in a wide variety of practical research settings. Educational, psychological, sociological disciplines are all concerned with the nature of children's inter-ethnic relations and their implications for various aspects of children's lives. This study applied the newly designed measure in an area that has recently demonstrated a need for valid tool of inter-ethnic relations among children: mental health. A worthy objective in its own right, this aim also contributed to the overall construct validity of the measure and the study as a whole, as it sought to determine if the developed measure was valid in the framework of an overarching theory of problematic inter-ethnic relations and health.

ETHNICITY & HEALTH: AN OVERVIEW

The relationship between ethnicity and health has received increasing attention in the international literature over recent decades. Studies among adult populations in the United States have long reported large racial disparities in health. African-Americans and Native Americans have higher death rates than Caucasian-Americans in most leading causes of death including heart disease, cancer, stroke, diabetes, homicide, liver cirrhosis, and kidney disease (Paradies, 2006; Williams & Mohammed, 2009; Williams, Mohammed, Leavell, & Collins, 2010). Other noted health discrepancies include higher infant mortality rates, asthma, and obesity (Pachter & Coll, 2009). However, debate remains as to the cause of the health discrepancies. Many point to other social determinants of health such as the lower socio-economic status of minority populations, lower levels of education, higher levels of unemployment, more hazardous professions, uneven distribution of resources, and limited access to adequate health care or health treatment as causes of health discrepancies (Braveman, Egerter, & Williams, 2011; Williams & Mohammed, 2009). These environmental and contextual factors are often referred to as 'institutionalized discrimination' and all represent ways in which social stratification and segregated environments can affect health outcomes for minority populations (Brondolo, Gallo, & Myers, 2009).

Given the wide SES differences between 'majority' and 'minority' populations, it can be argued that ethnic disparities in health outcomes may emerge, in part, due to these factors (Beiser, Hou,

Hyman, & Tousignant, 2002; Kaufman, Cooper, & McGee, 1997). The stress effects of low income, reduced access to health services, lack of education, single parenthood, poor housing, and lack of health insurance are all potential contributing elements to a individual's health and overall well-being (Aber, Jones, & Cohen, 2000; Leon & Walt, 2001; McLeod & Shanahan, 1996). Given the viable impact of these factors, researchers often control for SES as a confounding variable when exploring the impact of ethnicity on health.⁹

With regards to ethnicity, socioeconomic status, and health among children, there have been many studies conducted in the international literature with mixed findings (Chen, Martin, & Matthews, 2006; Priest et al., 2013; Samaan, 2000). Some studies have found that that poverty is a more significant indicator of mental well-being than ethnicity or race. Others have found the opposite to be true. However, even after controlling for SES factors, disparities along the lines of ethnicity continue to emerge in the literature (Carson, Cook, & Alegria, 2010; Costello, Farmer, Angold, Burns, & Erkanli, 1997; Williams & Mohammed, 2009; Williams, Neighbors, & Jackson, 2003).

Recent studies among adult populations have explored the association between perceived racism or discrimination and negative mental health outcomes, finding links between perceived discrimination and depression, anxiety, low self-esteem, suicide ideation, and over well-being (Karlsen & Nazroo, 2002; Krieger, Sidney, & Coakley, 1998; Paradies, 2006; Pieterse, Todd, Neville, & Carter, 2012; Williams & Mohammed, 2009). The increase in study of perceived discrimination is in line with a broader interest on the effect of stress and stressors on overall health and well-being (Williams & Mohammed, 2009). Perceived discrimination is based on subjective, self-reported experiences of discrimination and is not a comprehensive indicator of discrimination in society. It represents only one component. However, according to stress theories of health, self-reported experiences of discrimination are an indicator of whether or not an individual identifies the experience as stressful and whether or not it has potential for negative health effects (Clark, Anderson, & Williams, 1999).

Stress literature argues that stress can affect health through three principal pathways (Cohen, Janicki-Deverts, & Miller, 2007). Exposure to stress can give rise to negative emotional states that can cause psychological suffering and adversely affect health. Second, stress can lead to unhealthy behavioral coping mechanisms such as smoking, alcohol consumption, and loss of sleep. Finally, stress can lead to changes in psychological and behavioral responses, which can trigger functional changes in autonomic and immune systems which could contribute to the

⁹ In epidemiology, a confounding variable is one that can impact the outcome of the study and are not associated with the factor(s) under investigation.

onset and progression of illness. All of these potential responses deserve attention, particularly concerning how these stressors manifest in children. The current study focuses specifically on the association between inter-ethnic relations and mental health and well-being.

PERCEIVED DISCRIMINATION & CHILDREN

Despite the established association between perceived discrimination and negative health outcomes in adults, there is a relative scarcity of similar research conducted with children. In a review of literature, Paradies (2006) found that only 12% of longitudinal studies on perceived discrimination and health involved children. An extensive literature review of empirical studies by Patcher and Coll (2009) produced 40 articles reporting research on perceived discrimination and child health. In 2012, a review on the relationship between perceived discrimination and mental health in children and youth produced 156 articles from 121 studies (Priest et al., 2013). The increasing attention that the subject has been receiving in the literature underscores the growing recognition of the importance of the topic.

Of the relatively few studies that have been done on the subject, the findings indicate strong negative associations between perceived discrimination and child health, particularly with regard to mental and behavioral health (Pachter & Coll, 2009; Priest et al., 2013). A five year longitudinal study on African-American adolescents linked perceived discrimination to depression and conduct problems (Brody et al., 2006). In a study of Puerto Rican youth aged seven to ten, perceived discrimination was associated with higher levels of depression and school stress (Szalacha et al., 2003). Perceived discrimination has also been linked to low self-esteem, low global self-worth, feelings of hopelessness, and high levels of anxiety (Pachter & Coll, 2009; Priest et al., 2013).

While the existing child-based data is increasing, it continues to be particularly limited in scope. The vast majority of studies related to perceived discrimination and children's health have been conducted in the United States with a focus on African-American and Latino youth. According to Priest's 2012 review, 71% of empirical studies have been conducted in this context. An additional 10% were conducted in Australia or Canada, countries that also have a long-standing history of multiculturalism and diversity. Only 18% of the studies have been conducted in the European context, including the United Kingdom. The authors make no distinction as to number of total studies conducted in newly 'receiving' European countries (ex. Ireland, Italy, Spain, Greece) (Reyneri & Fullin, 2011). While all minority groups may share certain common experiences resulting from incidents of perceived discrimination, it is also important to note that experiences of discrimination are highly contextual and may vary greatly across countries and cultures. The experience of African-American youth in the United States may share certain

experiences with minority youth in a new migrant European country, but there are also bound to be many differences. Yet the health impact of perceived discrimination among migrant youth remains largely unexplored.

Available studies on perceived discrimination and child health are also limited in terms of age group studied. Of the studies included in Priest's review, only 38% of the studies involved primary school children. While this is notably more than the 25% of studies conducted on the same population at the time of Patcher and Coll's 2009 review, it is still considerably lower than the number of studies including adolescents aged 12-18 (85% of studies). If the theoretical model of perceived discrimination as a stressor is accurate, there are serious implications for the ways in which stress could manifest itself in children. Further exploration of the subject matter is necessary, seeing as how the relationship between perceived discrimination and health could be further complicated by the developmental affects that are unique to children (Pachter & Coll, 2009).

A common criticism raised in the reviews both with adults and children is the lack of standardization in the measurement of ethnic relations and health. Paradies (2006) found that in a review of 138 separate studies conducted with adults, 152 different instruments of self-reported discrimination were used. The measures varied greatly in terms of content and length, with discrimination being measured across conceptual dimensions including harassment, exclusion, attacks, and stereotypes. Among the 121 child-based studies reviewed by Priest, 123 different measures were used (2013). Of the studies involving children, there is a notable lack of psychometric validation in the measures. Previously validated instruments were tailored for specific studies and different versions of measures featuring different items were used. Most concerning is that only 36% of the studies that included data from children used instruments that were created and/or tested on children of like age (Pachter & Coll, 2009). Most studies used modified versions of adult questionnaires with questionable or untested validity for use with children. After a review of the area, Patcher and Coll concluded:

"This review suggests that it is an under-researched area to date. The literature has predominantly focused on behavioral and mental health conditions, older children and adolescents, and African-Americans, with few studies of the effects of racism in other minority groups. Most instruments used to measure racism in these studies were developed for adults; a more developmentally appropriate approach to measuring racism in children is needed".

This study aimed to develop a measure that could be used to fill the gap in data in this highly important yet under-researched field by designing and validating a measure of perceived discrimination through child-centred, nuanced approaches.

Another dimension of children's inter-ethnic relations that is linked to potential negative mental health outcomes is ethnic bullying or harassment. There is a wide body of literature identifying bullying behavior as a legitimate health concern, associating it with a large number of internalizing and externalizing health issues for both victims and perpetrators (Esbensen & Carson, 2009; Forero, McLellan, Rissel, & Bauman, 1999; Glover, Gough, Johnson, & Cartwright, 2000; Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Rigby, 2003).

There are a host of mental health risks for children who are victims of peer aggression and bullying including low self-esteem, depression, and anxiety (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Gini & Pozzoli, 2009; Nansel et al., 2001; O'Moore, 1995; Rigby, 2003).

Longitudinal studies indicate that the impacts of victimization can manifest over time, resulting in significant mental health issues and emotional problems by adolescence (Bond et al., 2001). Bullying victims often report higher levels of hopelessness and loneliness and in extreme circumstances, ideation of suicide (M. O'Moore, 2000; You et al., 2008). Being bullied at school affects a child's perceived sense of safety and can lead to avoidance of school and subsequently a drop in academic performance (Esbensen & Carson, 2009). Stress associated with ongoing victimization can also manifest itself psychosomatically, resulting in mild to severe physical symptoms. Children who have been victimized by peers report loss of sleep, bed wetting, headaches, nausea, eating disorders, and vomiting (Kaltiala-Heino, RimpelÄ, Rantanen, & RimpelÄ, 2000; Rigby, 2003, 2005; Williams, Chambers, Logan, & Robinson, 1996). Children who act as bullies also often display a number of internalizing and externalizing symptoms including depression, anxiety, aggression, and delinquent behavior such as early onset of substance abuse and classroom disruption (Kaltiala-Heino et al., 2000; Rigby, 1998; Roland, 2002). A recent study explored the long-lasting effects associated with childhood bullying behavior, for both victims and perpetrators. After controlling for family hardships and childhood psychiatric problems, childhood bullying was associated with poor mental health outcomes, substance abuse problems, and poor social relationships in adult populations (Copeland, Wolke, Angold, & Costello, 2013; Wolke, Copeland, Angold, & Costello, 2013). Some research indicates that the negative associations of bullying extend beyond those directly involved in the behavior. A study conducted on adolescents in the UK found that children who had merely observed bullying demonstrated more problematic mental health outcomes than those directly involved in the behavior (Rivers, Poteat, Noret, & Ashurst, 2009).

Despite the serious implications of the association between bullying and mental health, there remain very few studies that explore the effects of racial or ethnic bullying specifically. Many

quantitative studies report that ethnic minority children are more likely to experience bullying on the basis on ethnicity than their majority peer counterpart (Eslea & Mukhtar, 2000a; Larochette et al., 2010; Moran, Smith, Thompson, & Whitney, 1993). Some qualitative studies have found signs of distress and harmful outcomes associated with ethnic bullying (Curry et al., 2011; Qureshi, 2013). However, very few studies address the specific issue of ethnic bullying and its association with mental health in children. Ethnic bullying can be particularly traumatic for children, as “the target is not merely the individual child, but the entire group from which the child has developed belonging, identity, customs, and beliefs” (Jimerson, Swearer, & Espelage, 2009).

Problematic inter-ethnic relations among children including perceived discrimination and ethnic harassment or bullying are linked to damaging mental health outcomes for both victims and perpetrators. Taking into consideration the serious implications of problematic inter-ethnic relations, the limited amount of data surrounding the issue, and the lack of stringency in the validation of existing measures, this study aims to assess the association between mental health outcomes and problematic inter-ethnic relations among children using a measure that is child-centered, broad and coherent, reliable, and robust in validity. This measure also aimed to be suitable for use with children in a variety of contexts, including a group of ethnic minority children who are often overlooked in inter-ethnic relations research: first and second generation migrant children in new migrant communities.

2.7 - Applying the Measure: Minority Children in New Migrant Communities

One significant point that remains to be addressed is that of first and second-generation migrant children in new migrant communities. The vast majority of studies on inter-ethnic relations, ethnic harassment, and the association between perceived discrimination and health have been conducted on children residing in either the United States or Canada (Pachter & Coll, 2009; Priest et al., 2013; Tredoux et al., 2009). The presence of similar studies in the European context are relatively scarce (Vollebergh et al., 2005). In the United States and Canada, studies are typically conducted with ethnic minorities whose families have been part of the local culture for generations. While there are sure to be some similarities, first or second generation migrant children in a European context are bound to have different experiences of inter-ethnic relations than minority children in the broader American context. Migrant children often have different cultural backgrounds from many of their peers. Differences in language, religion, family structure, and leisure time activities all might influence the development of their social

relationships (Curry et al., 2011; Stevens & Vollebergh, 2008). Yet the experience of the migrant child remains largely un-documented in the literature on inter-ethnic relations.

One area where the lack of data on migrant youth is particularly visible is in relation to health. A small number of European based studies have emerged over the past decade examining the health of first and second-generation migrant children specifically. Unlike similar studies based in the United States and Canada, these studies typically did not include a measure of perceived discrimination. Instead, they theorized that the experience of migration and acculturation is a stress-inducing process, which leads to heightened risk of anxiety, depression, alienation, and stress among migrant children (Berry, Phinney, Sam, & Vedder, 2006; Fazel, Reed, Panter-Brick, & Stein, 2012; D. C. S. James, 1997). From this perspective, findings associating migrant status with mental health are mixed. A review of literature on the mental health of labour-based migrant youth (excluding asylum seekers) revealed that there is much variety in research design regarding sample, instruments, and constructs measured (Stevens & Vollebergh, 2008). The review reported that the results were largely inconclusive regarding the status of mental health among labour-based migrant youth and stressed the urgent need for standardized methods of assessing mental health in this population. A closer examination of Stevens (2008) literature review reveals that among the 20 studies reviewed, half of them relied on data gathered from adults, specifically parents or teachers. This is also true of more recent studies on migrant children and health in the European context (Margari et al., 2013). Considering the findings from similar studies, it is conceivable that the wide variance in the data is due in large part to the gap between the adults' reports of a children's mental health or behavior and the children's self-reported mental health or behavior.

There is a need for a measure of inter-ethnic relations that accounts for the unique social experience of migrant child. Ireland's multi-cultural landscape presents an ideal environment for development and validation of this type of measure for a number of reasons discussed in detail in chapter one. Specifically, Ireland has a uniquely diverse new migrant population, which is well represented in children under the age of 14 (CSO 2011). As such, Ireland's multi-ethnic primary schools present an ideal environment for the development and testing of a new measure of inter-ethnic relations, particularly with regards to the experiences of a new migrant society. There are few places in the world that have such a broad and diverse primary school population, with children from literally all corners of the world residing within one small country. Furthermore, the increase in diversity happened suddenly and quite recently, meaning Ireland is still in the immediate stages of adapting to its increased new ethnic makeup. A child-centered measure of inter-ethnic relations that proves reliable, relevant, and valid in the context

of Ireland's multiethnic primary schools could likely prove valuable and functional in multiethnic communities across the globe.

CONCLUSION

Children's inter-ethnic relations are nebulous and difficult to assess. Like other relationships in children's peer worlds, inter-ethnic relations are often fluid and evolving. They are ever-present and inextricable from day-to-day life, yet remain a subject matter that children often do not discuss directly. In spite of a long history of research on inter-ethnic relations among children, quantitative assessment of the topic remains controversial and relatively rare. Researchers often face conceptual and practical difficulties. However, in order to gain a broader understanding of children's inter-ethnic relations, it is necessary to approach the subject matter with a quantitative lens. This is not a task that can be undertaken lightly. To accurately assess children's inter-ethnic relations, a new measure must reflect upon the conceptual and psychometric shortcomings of previous approaches. This study aims to develop a measure that is broad yet approachable, psychometrically advanced yet reflective of the realities of the child's world. Specifically, this study aims to develop a quantitative measure of inter-ethnic relations that is a) child-centered, b) broad and coherent, c) reliable and sensitive, d) robust in validity, and e) suitable for use in new migrant communities. It aimed to do this through an in-depth, mixed methods research design, featuring thorough pretesting and piloting phases. The following chapter presents the methodological and analytical approaches of the study.

CHAPTER 3: RESEARCH METHODS AND ANALYTIC APPROACHES

Introduction

This study employed a combination of qualitative and quantitative methods and techniques in the design and testing of a child-centred measure of inter-ethnic relations. The study's main aim was to develop a measure that is a) child-centred, b) broad and cohesive, c) reliable and sensitive, and d) robust in validity. This objective was approached in two, successive stages. Phase one involved qualitative pre-testing of a preliminary version of the measure with 35 children, along with school-based behavioural observation. Phase two involved a pen and paper, pilot administration of the revised measure with 208 primary school children aged 8-11. The study relied on separate stages of data collection but the design and approach of the project was holistic. These stages were not two separate research projects. Rather they were complementary and inter-related pieces of the same venture. Thus, the methodological approaches for both phases are included in this chapter. To present them separately would be to suggest that they are not equally imperative components of one overarching research aim.

This chapter presents the methodological approach and analytic strategies of this research project. First, the benefits of a mixed methods research design are argued. Then, the theory behind a child-centred research approach is discussed. The benefits and challenges of school-based research are presented, highlighting issues related to recruitment and access. Both phases of the fieldwork are discussed in some detail, with sample characteristics, research methods, and administration procedures presented. The chapter goes on to discuss strategies and techniques for adhering to child-centred, ethnical research in practice. Finally, the analytic strategies and item response theory model are introduced.

Although the specifics of access, recruitment, and ethical challenges can be tiresome at times, there is value in discussing these issues at some length. First, it helps the reader grasp the complex and lengthy process of instrument design and thorough testing; secondly, it increases transparency of the research process by making the methods and techniques explicit; thirdly, it helps to preserve the human element in 'human research'. Far too often in social research, methods are presented, findings are analysed, and results are discussed, while the obstacles and setbacks encountered along the way are barely touched upon (Lindsay, 2005). Presenting an honest, transparent account of the research process, inclusive of the imperfect elements, will

work to further validate the data that has been successfully generated, and paint a realistic picture of what it is involved in implementing a strict, thorough, child-centred, measurement design and validation project.

3.1 - CHILD CENTEREDNESS AND QUANTITATIVE RESEARCH: A THEORETICAL JUSTIFICATION

This study arose from a demonstrated need for a valid, child-centred measure of inter-ethnic relations. Therefore, this chapter takes as its starting point a historical and theoretical exploration of child-centredness in social research. The practice of 'child-centred' research has evolved over the last 20 years in response to, and in connection with, international legislation and developing sociological theory. The ratification of the United Nations Convention on the Rights of the Child in 1989 set an international precedent for the recognition of children and young people as capable moral agents, respecting their ability to voice their opinion on matters of importance in their lives, and protecting their civil, economic, social, and cultural rights (Bell, 2008; Cohen, 1989; Tisdall & Punch, 2012). On a national level, Ireland's National Children's Strategy (2000) demonstrated a conceptual shift towards respecting the 'voice of the child' with the aim of developing a deeper understanding of children's lives and perspectives.

The emphasis on child-centeredness and children's voices in academia is embedded in the 'new' sociology of childhood and childhood studies. For the majority of the 20th century, child development theory was hinged on the assumption that adults were rational, developed, complete beings while children were in the 'unfinished or incomplete' process of becoming adults (James, 2004; James, 2010; Jenks, 2005). This viewpoint was challenged in the early 1990s by sociologists who argued that the 'children as becoming' model devalues the rights of the child, framing them as 'adults in the making' who are developmentally lacking the autonomy, rationality, and full-rights possessed by adults (James et al., 1998; Qvortrup, 1994). Children had been contextualized as agent-less beings who were powerless, incapable, and undeserving of the right to interact reciprocally and symbiotically with their worlds (Greene, 1997).

The reframing of children as 'beings' rather than 'becomings' gained popularity across multiple disciplines over the past decade (James, 2010; Tisdall & Punch, 2012). This widespread paradigm shift has impacted the way that child-focused research is conducted. Children are now widely treated as a part of the research process rather than merely object of academic inquiry (Christensen & James, 2008; Greene & Hill, 2005; Greene & Hogan, 2005). The emphasis on extracting and listening to the 'child's voice' has grown pervasive in recent sociological and psychological research studies (Eldén, 2012; Malcolm Hill, 2006; Allison James, 2007; Spyrou,

2011). Over the past 20 years, the notion of 'child-centeredness' transitioned from a pioneering idea to a recognized status quo for child-based research.

In an effort to best capture the child's voice, an abundance of innovative, child-centred methodologies have emerged (Beazley, Bessell, Ennew, & Waterson, 2009; Beazley et al., 2011). Recent studies have typically relied on in-depth interviews, focus groups, or emerging qualitative methods incorporating visual tools, artistic expression, or story telling (Clark, 2004; Einarsdottir et al., 2009; Malcolm Hill, 2006; Johnson et al., 2012; Jorgenson & Sullivan, 2009; Mitchell, 2006; Veale, 2005; White & Bushin, 2011). These are seen as effective and 'child-friendly' means of gathering data and encouraging active and meaningful participation in the research process. The data produced tends to be textured, detailed, and multifaceted, offering a unique glimpse into the child's world by providing respondents with an opportunity to share their experiences through interactive and creative mediums. However, these child-centred methods are subject to the same methodological trappings and limitations of qualitative research in general; they are limited in scope, demanding of resources, difficult to replicate, and lack generalizability (Bryman, 2012). Thus, there are times when it is necessary to examine children's lives on a larger scale, using quantitative methods to access larger populations. Some methodologists have dismissed the possibility of surveys being 'child-centred', arguing that key elements of the design (i.e. pen and paper format, limited response categories, test-like presentation) are fundamentally in contrast with the nature of the child (Hill, 1997; Morrow & Richards, 1996).

After spending the majority of my professional life working with children, there is a part of me that agrees with this argument. Speaking directly with children about their lives and allowing them the freedom to use various creative mediums *is* more 'child-centred', in that it engages participants in a way that they are more likely to enjoy. However, one must be cautious, as 'enjoyable' is not synonymous with 'effective' (Hill, 2006). Moreover, the argument that quantitative measures are not 'child-centred' is generally un-researched and unverified. Most children are well versed in the role of 'respondent', ranging from school-based testing to surveys and competitions in the media. When introducing the current project a classroom, I would start by asking: "who knows what a survey is?" and nearly every hand in the class would go up. Furthermore, from a research perspective, very few child-based studies include an evaluation of the respondents' feelings towards participation. In a recent review of children's reflections on methodologies, the authors reported only one quantitative survey that included questions on children's feelings towards the research process (Hill, 2006). Over half of the respondents did not mind taking part, one third enjoyed taking part, and only 18% partially or wholly disliked the experience (Brannen, Heptinstall, & Bhopal, 2000). Hill's review went on to

conclude that there is no 'gold standard' method for conducting child-centred research. Different methods suit different personalities and research aims, and when possible, it is ideal to use a range of approaches (2006).

Rather than make a claim that surveys are as 'child-centred' as other research methods, this project set out to design a quantitative measure through a participatory engagement with children. Children provided valuable insights into their worlds, shaping the development of the instrument and allowing the child's voice to be represented. The result is a quantitative measure that is more 'child-friendly' than one created by traditional methods, as it has been designed in cooperation with children themselves. This procedure adheres to the current sociological standards of 'good practice' but also stays in line with a personal philosophy and ethical recognition of children's autonomy.

This chapter goes on to discuss the research design, the recruitment process, the samples and the methods. Later in the chapter, a reflexive discussion of the practicalities of child-centred, quantitative research is discussed through an ethical and methodological lens.

3.2 - RESEARCH DESIGN: A MIXED METHODS APPROACH TO MEASURE CONSTRUCTION

This research aimed to develop a quantitative measurement tool of children's inter-ethnic relations that is: a) child centred, b) broad and cohesive, c) reliable and sensitive, d) robust in validity, and e) suitable for use in new migrant communities. Within this one main objective, there are several important, individual facets. It is important to re-emphasize that the main objective of the study was the *development* and *testing* of this instrument, not a full-scale implementation. Given the lack of psychometric rigor in many of the existing quantitative studies in this area, it is necessary for any new quantitative measure of children's inter-ethnic relations to undergo an in-depth, comprehensive testing phase. Pre-testing and piloting can reveal noteworthy problems within an instrument while also producing enough data to evaluate the psychometric qualities of a measure (Furr, 2011). For this reason, a two-stage, mixed methods approach was the most suitable for design and evaluation.

Mixed methods designs can take many forms, though the defining element is that "a researcher or a team of researchers combine elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Johnson, Onwuegbuzie, & Turner, 2007). This involves collecting both qualitative and quantitative data, analysing groups of data, and mixing the datasets in a meaningful way to develop an overall interpretation. The combination of methods can happen concurrently or

sequentially. The key is that they inform each other, with an emphasis on methodological eclecticism and continua rather than a set of research dichotomies (Clark, Creswell, Green, & Shope, 2008; Tashakkori & Teddlie, 2010).

This interactive and reciprocal 'problem-solving' process is ideal for measurement development. It allows researchers to "simultaneously ask confirmatory and exploratory questions and thereby verify and generate theory in the same study" (Tashakkori & Teddlie, 2010). Mixed methods approaches also benefit instrument design and validation in that they provide triangulation (convergence), complementarity, and an extension of findings beyond what is available with any single method (Onwuegbuzie, Bustamante, & Nelson; Tashakkori & Teddlie, 2010). For example, qualitative data can gather information from participants regarding their perception of the cultural or generational relevance of the specific quantitative items. This strategy is particularly helpful when researching children's social worlds, as they are characteristically difficult for adults to access and negotiate (Due et al., 2013; Thomas & O'Kane, 1998). It has also been argued that a qualitative consultation process makes a quantitative measure more child-friendly, and therefore, may also have a positive influence on response rates in addition to being a robust method for measure validation (Lightfoot & Sloper, 2003). While mixed method research has many benefits, particularly in the field of measurement design, it is not without challenges as well. The inclusion of two methodologies is time consuming and labour intensive in terms of both data collection and analysis. A clearly defined methodological and analytic strategy is imperative in order to maximize the benefits of the approach.

In implementing the mixed methods design, development and testing were broken down into two distinct stages: a pre-test and pilot. This facilitated the collection of a substantial amount of qualitative and quantitative data to inform the development of a child-centred measure of inter-ethnic relations. The pre-test phase generated qualitative data through cognitive interviews and unstructured behavioural observations. This data contributed to the revision and re-development of the quantitative measure. Quantitative data gathered during the pilot was used to test the psychometric reliability and validity of the new measure through non-parametric item response theory scale analysis and validation testing. Additional qualitative data was correlated and compared with preliminary findings from the quantitative data. This further builds validity for the quantitative measure, eases interpretation and clarification of the data, and provides an avenue for children's voices and narratives to enter into the research findings.

3.3 - SCHOOL-BASED RESEARCH: RECRUITMENT, CHALLENGES, AND THE NEED FOR FLEXIBILITY

Primary schools were selected as research sites for a few key reasons. From a recruitment perspective, they offered an opportunity to access large and diverse populations of children in one location. Nearly all children attend primary school, resulting in less sampling bias than other child activity centres such as sports groups or religious classes. Furthermore, schools act as a site of mandatory interaction for many children, while out-of-school activities tend to be limited in terms of inter-ethnic contact (Curry et al., 2011).

As the purpose of the study was measurement design and testing, random sampling did not take precedence as it would in a large scale, quantitative administration. Instead, the focus was on recruiting multi-ethnic schools that were open to the research process and on securing a diverse sample of children including multigenerational Irish children, as well as first and second generation migrant children. The pre-test phase, in particular, required a considerable commitment on the part of the school in terms of time, space, and interference. Therefore, a *convenient, purposive* sampling strategy was employed. An initial list of potential schools was compiled based on the schools' anticipated willingness to participate in the research and on their total minority population.¹⁰ The Trinity Immigration Initiative had established relationships with local principals who had been involved in previous in-depth qualitative studies. These schools were approached first, as they had a demonstrated an openness to research in the past and were familiar with the funding body. An opening letter and information sheet introducing the project were sent to principals of these multi-ethnic schools. A follow-up call was placed a few days later and a meeting was requested to discuss the nature of participation in detail.

Early into the recruitment stage, it became clear that the process was going to be more difficult than originally expected. Principals frequently refused participation outright, citing research fatigue as the most common reason for refusal. Many schools were already hosting teachers completing research and could not facilitate any additional projects. Others were inundated with research requests and did not see any reason why this project should take priority. A few sample responses from principals and teachers are provided:

We have two of our own teachers doing a Master's in Education and they have further research of their own to carry out in the school. We also have another member of staff doing some research in the area of educational leadership and we're working closely with

¹⁰ Given the nature of the research, schools with a minimum minority population of 25% were sought.

2 colleges of education and their students this year so unfortunately we cannot accommodate any further work at this time.

There would just be too much involved to fit in at this stage of the term and in fact, I get loads of these requests all the time.

We have a number of such requests outstanding from parents, staff and others, and we have to refuse somebody at least once a week.

A few principals expressed an interest in the research but then did not receive approval from the board of directors to move ahead with the project. In total, 24 principals were contacted through this method, with only four agreeing to formally meet with me to discuss the research. Three of these four principals directed 'cluster' schools as described in chapter one, with migrant populations of more than 98%. All of these principals were enthusiastic about participating in the project. Two contacted me immediately after receiving my introductory letter to express interest. Their eagerness stemmed from an investment in the research aim, but also from a desire to raise awareness about the highly segregated nature of some schools in of Dublin's commuter belt. One principal bluntly stated:

I like your research but you won't be able to study integration at my school because there is no integration at my school.

What he meant by this statement was that there were virtually no multigenerational Irish students enrolled in his school. There was, however, a high level of integration between first and second generation migrants from a multitude of ethnic and cultural backgrounds. The segregated nature of many schools was also echoed by principals who refused participation. Several principals qualified their refusal by stating, "we don't have many minority children in this school so we would not be a good option for you".

The setback in the recruitment process resulted in a substantial delay in the project timeline and a re-evaluation of the strategy. In response, I began appealing to personal contacts who worked as teachers and in teachers' unions, asking them for help with recruitment. My personal contacts then acted as gatekeepers by supplying principals with information sheets and vouching for my character. I would then contact the principal directly and ask to arrange a meeting to discuss the research in further detail. This method of recruitment had a high success rate when compared with 'cold contacting' principals. An additional four schools were recruited through personal contacts, with only one refusal.

Once a principal took interest in the project, the recruitment process was relatively smooth. He or she typically acted as a gatekeeper with classroom teachers, arranging introductions and meetings. When meeting with teachers, I provided information sheets, a copy of the survey, and discussed any questions or concerns that they had. No teachers refused participation after our initial meeting. Overall, they were involved, accommodating, and appeared interested in the topic.

After selecting classrooms for participation and meeting with teachers, I visited each classroom at a pre-designated time to introduce the research project to the children. This process is explained in further detail later in the chapter. During this session, information sheets and consent forms for parents and guardians were distributed. My contact information was included and parents / guardians were encouraged to contact me if they had any questions or concerns regarding the nature of participation.¹¹ Parental consent varied greatly across schools. The highest level of consent was 92% in one classroom while the lowest level of consent was 44% in another. It is notable that schools with the highest levels of parental consent were 'cluster' schools with very high levels of migrant parents. Furthermore, the principals of these schools reported overall high levels of parental engagement in school activities. Conversely, the schools with low response rates were designated disadvantaged inner city schools. In these classrooms, principals and teachers voiced concern over parents' overall engagement and cited this as the suspected reason why many consent forms were not being returned.

While diverse classrooms seem to be model laboratories for testing a measure of inter-ethnic relations, I was always mindful that classrooms are not research labs. They are working environment for both students and teachers. Every classroom in every school had an established equilibrium, a *modus operandi* that was understood by the students and the teacher. In agreeing to participate, teachers, principals, and students all volunteered their time and graciously permitted an interference with their daily routine. As a former teacher, I was acutely aware of the impact that 'outsiders' can have on the balance of a classroom. I was also conscious of the priorities, demands, and disturbances that are active in a school on any given day. With that in mind, I sought to respect the life of the classroom and the school by adopting an open-minded and flexible approach to data collection. This approach was beneficial in terms of rapport building and gaining access, as it demonstrated my level of respect and a willingness to 'take a backseat' to school priorities. However, it also presented methodological complications in terms of data collection.

¹¹ Parent information sheets are included in Appendix F

For example, one pre-test school did not have a private room where I could conduct interviews. As a result, I was placed in hallways, the staff room, or the copy room, depending on what space was available at the time. This proved detrimental to the interview process, as staff members would occasionally come in and out of the room to retrieve supplies or use the copier. Some participants grew visibly uncomfortable when another adult interrupted and I, as a researcher, felt concerned that I could not guarantee confidentiality in these circumstances. When faced with this situation, I would change the focus of the interview to something 'light', such as preferred leisure activities, in an attempt to minimize the child's discomfort and preserve confidentiality with regards to more sensitive topics. In a few cases, however, the interruption disrupted the flow of the interview and a conversational rapport could not be re-established.

Another challenge of school-based research was the ever-changing nature of school-time scheduling and activities. On several occasions, I arrived at a school at a pre-determined time to be informed that my class was on a field trip, in a sports assembly, or that a mandatory test had been rescheduled. Maintaining an open and flexible attitude in these situations was difficult at times, but essential. When working in a school, unforeseen situations arise on a regular basis. For teachers and principals, this fluidity is routine. To react adversely would have been disrespectful to gatekeepers and participants, and detrimental to my research.

For these reasons, schools were not 'ideal' fieldwork locations but they were the most appropriate given the nature of the project. They facilitated access to relatively large numbers of participants in multi-ethnic environments and provided a venue within which a new measure could be designed and tested. This rather detailed discussion of the school-based research aimed to provide a transparent account of some of the methodological obstacles encountered in this project and the strategies employed in order to move ahead with the research process.

3.4 - PHASE ONE: PRE-TEST

SAMPLE

Pre-testing took place from January – April 2012. A total of three schools were used as recruitment points for this phase of the research. All three were national schools located in the greater Dublin area. Two schools were in the suburban commuter belt and one school was in Dublin city. The ethnic makeup of the pre-test schools varied. One was a 'cluster' school with a very high rate of minority students (99.2%), while the others had a more moderate mix of minority and multi-generational Irish students.

Table 4: Characteristics of pre-test schools

	Location	Gender Make Up	Percent Minority	Classes Surveyed	Number of Participants	DEIS or Non-DEIS
School 1	Suburban	Mixed	99.2%	Fourth class	13	Non-DEIS
School 2	Suburban	Mixed	35.6%	Third class	10	Non-DEIS
School 3	Urban	Mixed	26.3%	Second class	15	DEIS ¹²

In each school, I used one class as a point of recruitment. To cover the full range of the target population for the measure, I included one fourth (28.6%), one third (28.6%), and one second class (42.8%). A total of 35 children were interviewed during pretesting. Twenty (57.1%) were girls and fifteen (42.9%) were boys. The average age was 9.25 years. A total of 20 (57.2%) children were multigenerational Irish, ten (28.6%) were second generation migrants, and five (14.2%) were first generation migrants. Children of Nigerian decent (7, 20%) constituted the largest minority group, with Congolese, Libyan, Pakistani, Chinese, Romanian, and Polish ethnic backgrounds also represented in the pre-test sample.

PRE-TEST MEASURES

Prior to entering the field, an extensive review of existing qualitative and quantitative research on children's inter-ethnic relations was conducted. This included immersion in the local and international literature, as well as comprehensive review of existing quantitative inter-ethnic measures. Drawing on the literature, particularly on the qualitative data produced by the Trinity Immigration Initiative's Seven School Study, an over-inclusive preliminary pre-test questionnaire was produced. Pre-test measures are by nature lengthy, exhaustive, and erroneous. Their intention is to cover a broad range of items before 'weeding out' questions and topics that are found to be inappropriate (Baker 1994; Van Teijlingen et al. 2001; Collins 2003). The pre-test measure included items on school enjoyment, school time contact, out of school activities, ethnic attitudes, perceived discrimination, ethnic bullying, neighbourhood ethnic composition, family composition, and demographic information¹³. An in-depth discussion of the pre-test measure, the cognitive interview content, and analysis are presented in Chapter Four.

The pre-test measures were administered, face to face, in a *cognitive interview* format.

Cognitive interviews are semi-structured qualitative tools that aim to capture how respondents perceive and understand questions, and to identify potential problems that may be present in a

¹² DEIS identifies schools that are designated 'disadvantaged' by the Department of Education and Skills and may receive additional support in the form of home liaisons, learning support teachers, or provided school meals.

¹³ A copy of the pre-test measure is included in appendix B.

prospective measure (Drennan, 2003). In measurement design, the aim is to create a tool that provides valid, reliable, sensitive, holistic, and unbiased results. If the wording or content of an item is inaccessible for the target population, the instrument will be weak and only capable of producing misrepresented, unreliable, or irrelevant data. Particularly when designing a child-centred measure, it is crucial that items do not exceed a child's cognitive ability. This means that children must be able to read, interpret, and respond to any given item on the measure.

Cognitive pretesting is especially helpful in examining the developmental validity of items for children, as participants can be asked to read questions aloud and explain their interpretation process (Krähenbühl & Blades, 2006; Woolley, Bowen, & Bowen, 2006). This establishes whether respondents can understand the items consistently and in a way that the researcher intended. Probe methods can also be used to evaluate comprehension, judgement, and response processes and can provide contextual, in-depth qualitative data for the purpose of clarification. To maximize the value of cognitive interviews in this study, a combination of 'think aloud' and probing methods were employed (Collins, 2003). This flexibility allowed the researcher and participant to find a method that best suited the participant's personality and comfort level. While some children were able to 'think aloud' as they answered questions, others found the task to be challenging or uncomfortable. In these situations, I relied on follow up and probe questions, making the interview more conversational.¹⁴

In addition to cognitive interviews, unstructured behavioural observations of peer interaction at school were also conducted during the pre-test stage. As opposed to structured observation where data collection is confined by predetermined criteria, unstructured observation does not dictate *a priori* the behaviour that will be observed. Rather, it allows the researcher to observe a situation without limitations. It is particularly suited for gathering insights into interactions between individuals and/or groups and information on the influence of physical environment on behaviour (Mulhall, 2003).

The majority of observation sessions took place during yard time, when children were allowed to interact freely with peers of their choosing without imposed structure from adults. In one school, I also observed collaborative classroom time. These sessions provided valuable contextual information and informed the content of many of cognitive interviews.¹⁵ They also presented the opportunity for less formal, discursive interactions with participants and school personnel. While no official data was collected from school staff in these circumstances, their

¹⁴ A further discussion of cognitive interviewing, including a list of probe questions, is included in chapter 4.

¹⁵ A more detailed discussion of behavioural observation is presented later in the chapter.

insights and stories coloured my understanding of inter-ethnic relations in school and in the broader communities.

ADMINISTRATION

In each school, pre-test data collection took place over the course of two weeks. The first week involved three yard-time observation sessions and, when possible, one class observation session. Cognitive interviews were conducted in week two. Prior to each interview, I re-explained the purpose of the research and discussed issues of confidentiality, anonymity, and voluntary participation. I told them that I was in the process of designing a survey and that it was very important for surveys to use words and phrases which children understand and use themselves. I explained that adults often don't know the best words to use when talking with children and it would be very helpful if they could tell me if something didn't make sense to them. Particularly in a school setting, children are not encouraged to provide feedback on a document when it is presented to them. I was aware that this exercise was unconventional so I spoke at length with each child before beginning the interview. I emphasized that they were helping me by telling me what was wrong with the survey, a task that most met with enthusiasm and earnestness. I also asked children if they would be willing to 'talk through' their answers as we went along (Willis, 2005). To demonstrate what this involved, I asked them to ask me any question and then I 'talked through' my response process. A sample question and response are presented below:

Jenny: What's your favourite food?

Interviewer: Hmm... I like a lot of foods so this is a hard one. Well, I love pizza and I love fish and I love broccoli. But pizza isn't very healthy and sometimes I'm not in the mood for fish or broccoli, you know? But I'm always in the mood for avocados. And I can eat them with breakfast or lunch or dinner. So I think my favourite food is avocado.

These sample questions provided a concrete example of what was expected in the 'think aloud' cognitive interview and also served as an ice breaker between myself and the participant. The cognitive interviews were conversational and I frequently departed from the survey to follow-up and probe on certain topics. Interviews were audio recorded and took between 40 and 90 minutes. Longer interviews were broken down into two sessions to prevent exhaustion and to facilitate the child's involvement in other school time activities (lunch, yard time, art) throughout the course of the day. Each child was interviewed individually in a private room or area designated by the school. As discussed earlier, one school was limited in space and some

interviews had to be conducted in hallways or staff rooms. This was less than ideal, though it served as the best option in these circumstances.

During observation sessions, I positioned myself on the side of the yard where I could observe the entirety of the play space. I made every effort not to interfere with the social interactions that were taking place on the yard, though there were several occasions where children would approach me and engage in conversation. In these instances, I talked with the children but strove to keep the conversations brief. Immediately following a session, I would record my observations in a field journal. I also sketched yard spaces, aiming to keep a record of where children were physically located at yard time with regards to each other.

Observations supplied concrete and contextual details that could be incorporated into interviews. For example, I could ask children about their choice of yard time playmates or activities (ex: "I noticed that you didn't play tag with the other kids today"), which served as a jumping off point for qualitative data collection and also helped me establish credibility with participants. Yard time socialization may seem trivial to some adults but it is of great importance in the lives of children (Curry et al., 2011; James et al., 1998). By asking questions about their social worlds in a serious and informed manner, I was validating the presence of that world, which goes largely unnoticed (or at least, uncommented on) by adults in the school, and giving credence to the significance that it holds. Furthermore, I was authenticating my intentions by displaying an interest in their lives and social worlds. My active interest often resulted in children opening up and explaining certain yard time behaviour or friendship politics in some detail. Some adopted the role of an instructor and I was the student, digesting the information and striving to understand the highly complicated and fastidious rules of social engagement.

A long time ago, Abbey, she used to play with this girl Sheena. That's her best friend, really best friend. And I used to play with Ariana and Layla – we used to always play and all that. And then Sheena, she left. And then Ariana and Layla, they're like best friends so they started to play by themselves and then they didn't want me but I'm still friends with them.

--R106, first generation Chinese girl, fourth class

All qualitative data generated in the pre-test phase was transcribed verbatim for analysis. A total of 35 interviews and six hours of observation were conducted.

3.5 - PHASE TWO: PILOT

SAMPLE

The pilot stage of the research took place from May 2012 – January 2013. A total of 10 classes from five schools were used as recruitment points. All five schools were national schools, four located in the greater Dublin area and one in Limerick. As in the pre-test, two schools located in the Dublin commuter belt were ‘cluster’ schools that served minority children almost exclusively. The remaining schools had a mix of minority and multigenerational Irish students.

Table 5: Characteristics of the pilot schools

	Location	Gender Make Up	Per cent Minority	Classes Surveyed	Number of Participants	DEIS or Non-DEIS
School 4	Suburban	Mixed	99.2%	Two fourth classes	45	Non-DEIS
School 5	Urban	Mixed	53.7%	One fourth class, one third class	22	DEIS
School 6	Urban	Girls	38.2%	One third class, one fourth class	25	DEIS
School 7	Suburban	Mixed	98.7%	One second class, one third class, two fourth classes	80	Non-DEIS
School 8	Urban	Boys	41.5%	One fourth class	23	DEIS

A total of 208 students completed the pilot survey. Of those 208 participants, 12 were missing more than 50% of their responses.¹⁶ Therefore, it was decided to remove these 12 cases from further analyses, resulting in a final pilot sample of 196.¹⁷ Table 6 presents demographic information. A total of 101 (51.5%) boys and 95 (48.5%) girls were surveyed. The majority of the children were in third class (99, 50.5%), followed by fourth class (70, 35.7%) and second class (27, 13.8%). Because of the ethnic composition of the largest pilot schools, the majority of the children had a minority background, with only 19.9% of the sample having two multigenerational Irish parents. However, only 67 children (34.2%) were first generation migrants. Nearly half of the sample (92, 46.9%) were second generation migrants, meaning that they were born in Ireland to migrant parents. Only one child in the pilot sample had one multigenerational Irish parent and one migrant parent. This child’s generational status was classified as ‘second generation migrant’ for ease of analysis and summary.

¹⁶ In these cases, children displayed signs of respondent fatigue, asking if they could stop the survey after completing only a few questions. The survey was lengthy and an unwillingness to participate was expected among some participants. Given the voluntary nature of the research, they were told that they could stop at any time.

¹⁷ A summary of missing data and treatment methods are discussed in Appendix G.

Table 6: Demographics of the pilot sample

Demographic Variable	Response Categories	Frequency	Percentage
Gender	<i>Male</i>	101	51.5
	<i>Female</i>	95	48.5
Class Year	<i>Second Class</i>	27	13.8
	<i>Third Class</i>	99	50.5
	<i>Fourth Class</i>	70	35.7
Generational Status	<i>First generation migrant</i>	67	34.2
	<i>Second generation migrant</i>	92	46.9
	<i>Multigenerational Irish</i>	37	18.9
Mother's Birth Country (Top 10)	<i>Nigeria</i>	41	20.9
	<i>Ireland</i>	39	19.9
	<i>Pakistan</i>	18	9.2
	<i>Poland</i>	12	6.1
	<i>Lithuania</i>	9	4.6
	<i>Romania</i>	8	4.1
	<i>Philippines</i>	8	4.1
	<i>India</i>	8	4.1
	<i>Cameroon</i>	7	3.6
	<i>Moldova</i>	6	3.0
Religion	<i>Christian (Non-Catholic)</i>	89	45.4
	<i>Catholic</i>	50	25.5
	<i>Muslim</i>	41	20.9
	<i>Hindu</i>	10	5.1
	<i>Eastern Religion</i>	3	1.5
	<i>Other</i>	1	0.5
	<i>Missing</i>	2	1.0

MEASURES

The pilot survey included a large selection of new items along with three previously validated outcome measures. The new items covered a broad range of topics, aiming to holistically evaluate the nature of social relations among multigenerational and minority children both in and out of school. A thorough discussion of included items is presented in chapter 4, along with data produced by the cognitive interviews. The following section provides a brief overview of the new items arranged by topic, as well psychometric information on the existing outcome measures.

The pilot measure included 28 items, arranged in six sections: feelings about school, ethnic bullying, the area where you live, 'being treated differently', 'who you spend time with', and 'about you and your family'. Below, each section is introduced briefly.

Feelings towards School: These questions were related to the child's current feelings towards their school experience. Questions asked about their enjoyment of school, what they enjoy about school, and their level of comfort at school. This section served as an 'ice breaker' and eased students into the survey with basic, unobtrusive questions.

Ethnic Bullying Items: This section featured 15 items related to three forms of ethnic bullying: picking on other children, getting picked on by other children, and observing other children getting picked on. While there are many available instruments that assess bullying behaviour among primary school children, there are relatively few that address the issue of ethnic harassment in detail. It has been argued that ethnic bullying can be particularly traumatic for children, as the target is not merely the individual but "the entire group from which the child has developed belonging, identity, customs, and beliefs" (Scherr & Larson, 2010). In prominent measures of bullying, skin colour, language, nationality and religion are often included in a single category (Olweus, 1993; Ken Rigby & Slee, 1993). While all of these factors are individual attributes that may be targeted in instances of ethnic bullying, they are undeniably very distinct components. Particularly when assessing the situation of migrant children, it is important to recognize that skin colour and ethnic background, for example, stand apart as two separate contextual factors that may affect ethnic harassment (Curry et. al, 2011). The questions presented in this section allowed for these individual components to be separately assessed. The focus on ethnic bullying specifically

Furthermore, these items made a departure from other prominent bullying surveys with regards to the use of the phrases "bullying" or "harassment" in the written and spoken instructions to participants. Instead, it employed the phrases "picking on" and "giving out" followed by specific examples of different kinds of behaviour. There are several reasons for this rephrasing. For one, it is believed that the definitional thinking utilized in traditional bullying questionnaires could prevent children from giving an accurate reporting of their behaviour. Over the past decade, there has been an international recognition of the immediate and long-term harmful effects of repeated bullying and harassment (Bacchini, Esposito, & Affuso, 2009; Glover, Gough, Johnson, & Cartwright, 2000; Rigby, 2005). As a result, many schools have developed anti-bullying policies and implemented anti-bullying programs (Black & Jackson, 2007; O'Moore & Minton, 2005). However, what constitutes 'bullying' behaviour is not universally agreed upon and evidence indicates that there may be distinct differences between how researchers and children define bullying (Thornberg, 2010; Vaillancourt et al., 2008).¹⁸ To avoid miscommunication, many bullying questionnaires begin with a definition of bullying.

¹⁸ The current study found that children had many different ideas about what constituted bullying behaviour. Examples are presented in Chapter 4

However, if a questionnaire begins with a definitional statement saying, “bullying is bad and harmful”, it immediately qualifies certain behaviours as ‘bad’ and therefore, provides children with a definition of what is undesirable before beginning the survey. This could lead to an under-reporting of certain types of behaviours on the basis of social desirability (Felix, Sharkey, Green, Furlong, & Tanigawa, 2011; Kert, Coddling, Tryon, & Shiyko, 2010). By using words and phrases that children themselves use when describing their behaviour, the current ethnic bullying measure aimed to produce a more accurate picture of ethnic name calling, ethnic teasing, and harassment in multi-ethnic primary school classrooms.

The Area Where you Live: These items were related to how children feel about their neighbourhood, how safe they, whether they play outside, and how many friends they have in their neighbourhood. There is evidence that multigenerational Irish children and minority children have distinct and different out-of-school time social habits (Curry et al., 2011). These questions aimed to capture how out of school time play may differ between these groups.

Being Treated Differently: This section aimed to assess a child’s perception of discrimination on the basis of skin colour, ethnic background, birth country, or accent. Recent studies have begun exploring the relationship between perceived discrimination, stress, and negative mental health outcomes (Pachter & Coll, 2009; Priest et al., 2013). Despite the serious implications of this association, there remain relatively few child-centred quantitative measures of perceived discrimination. Of the existing measures, the majority have been developed in the United States and are not necessarily valid for use in European countries or in diverse, ‘new migrant’ communities. These items asked children about their exposure to five discriminatory situations. Some of the items on the measure were adapted from similar items on the Perceived Racism in Children and Youth instrument to be made applicable for migrant youth in the Irish context (Pachter, Szalacha, Bernstein, & García Coll, 2010). This section was administered to minority and multigenerational Irish children, as I did not dismiss the possibility that children from the ethnic majority may also often experience feelings of perceived discrimination due to skin colour, accent, or ethnic background.

Who You Spend Time With: This section included 12 items to measure contact between children born in Ireland and children born outside of Ireland. The items were designed using a Mokken item response theory approach to scaling, meaning that items increase in ‘intensity’ with the purpose of forming a hierarchical, non-intersecting scale (Mokken, 1971)¹⁹. The items aimed to concisely assess the level of contact that children have both in and outside of school. Items

¹⁹ A full discussion of Mokken scaling is presented later in the chapter.

begin with casual contact and gradually move to contact associated with close or intimate friendship (i.e. visiting each other's homes). A few additional questions including 'do you have any best friends born in Ireland' and 'do you have any best friends born outside of Ireland' also aimed to measure intimate contact between migrant children and those born Ireland.

'About you and your family': This section included questions about the child and his / her family including the child's location of birth, the parents' location of birth, the presence of siblings, and religion. This section provided vital demographic data including age, ethnic background, religion, and length of time in Ireland (when applicable).

Outcome and Validation Measures

Three existing, previously validated measures were administered with the new measure. These measures allowed the new instrument to be evaluated alongside widely tested tools of proven outcomes or concurrent measures. They served to confirm that the new measure can accurately capture its intended construct, and also test the measure in an area of demonstrated need: inter-ethnic relations and mental well-being. The following section introduces the outcome measures and provides brief psychometric information of their performance with the current sample.²⁰

The Olweus Bully/Victim Questionnaire (OBVQ) has been a major cornerstone of bullying research for the past twenty years. Studies using the OBVQ have been performed in over 15 countries, with several studies testing the validity of the measure, including in the Irish context (Eslea & Mukhtar, 2000b; Lee & Cornell, 2010; O'Moore & Minton, 2005; Olweus, 1986; Solberg & Olweus, 2003). In this measure, bullying behaviour is defined by physical and verbal aggression, exclusion, and relational aggression such as malicious rumour spreading and gossip. Students are asked to report the frequency of involvement in bullying incidents over the past month. The bully scale and the victim scale both had high levels of internal consistency with the current sample, with a Cronbach alphas of .90 and .89 respectively.

The Piers-Harris Self Concept 2nd Edition is a 60 item self-report instrument for assessing self-concept in children ranging in age from 7 to 18 (Piers, 2002). Items consist of statements about how a child feels about themselves with a yes / no answer option. Subscales include: happiness and satisfaction, popularity, behavioural adjustment, intellectual and school status, physical appearance and attributes, and freedom from anxiety. It has been used in many major international studies as an indicator of child well-being and has been used in a local context

²⁰ The complete outcome measures are included in Appendix D.

with nine year old children in the Growing Up in Ireland study (Williams et. al , 2009). The Piers Harris serves as an outcome measure and works to build convergent validity for the newly developed measure. An analysis of internal consistency in the current study yielded a Cronbach's alpha of .90 for the total scale. Subscale alphas also indicated satisfactory internal consistency (BEH = .81, PHY = .67, POP = .75, HAP = .66, FRE = .81, INT = .73).

The Depression Self Rating Scale for Children (DSRS) is an 18 item scale to assess depressive symptoms in children ranging in age from 8-14 (Birelson, 1981). The measure provides children with a list of statements and they are asked to indicate how often they have felt that way within the past week. It is important to note that the DSRS is not a diagnostic tool of depression. Rather, it screens for the presence of depressive symptoms in children. The test-retest reliability of the scale on an independent sample showed satisfactory stability (0.80) (Birelson, 1981). In the current study, the scale established internal consistency with a Cronbach's alpha of 0.84.

Pilot surveys were administered in the classroom. As with the pre-test, parental and child consent was gathered for all participants. In situations where parental consent was not given, the child did not complete the survey. Instead, they sat at their desk and read a book or completed schoolwork. Surveys took approximately 45 minutes to complete. No identifying information was collected with the paper surveys. All completed questionnaires were stored in locked cabinets in my office.

3.6 - A CHILD-CENTRED RESEARCH APPROACH IN PRACTICE: STRATEGIES AND ETHICAL ISSUES

While many sociologists and psychologists encourage the adoption of a child-centred ethos, few discuss what practical form that takes during research design, fieldwork, and analysis. In this section, I will describe how a 'child-centred' ethical standard was incorporated into the various stages of this project, as well as the challenges it presented.

A great deal of attention has been focused on ethical issues related to informed consent, confidentiality, and child protection. However, there are no gold-standard, 'good practice' guidelines for conducting "child-centred" research, per se. The ethical protocols established in this study were influenced by formal ethical protocols, good practice guidelines from the literature, and personal experience researching and working with children (DCYA, 2012; CRC, 2006; Christensen & Prout, 2002; Punch, 2002). I supplemented the formal ethical and child protection guidelines with my own personal ethos for working with children. Prior to entering the field, I reflected on what qualities and values I associated with 'child centeredness' and how

I would translate them into practice. For me, the most fundamental underlying value was the recognition that children deserve to be treated with *respect* and *sincerity*. I set guidelines for myself:

- Children’s autonomy should be acknowledged and never undermined.
- Confidentiality should be upheld, including with peers and adults in the school.
- Speak to children like you would like to be spoken to, without relying on patronizing words or tones.
- Explain everything clearly.
- Leave plenty of time for questions. Never rush this step.
- Make the process as transparent as possible.
- Allow them to have fun with the process. Allow yourself to have fun with the process.
- Recognize the human element in what you are doing.
- Never view anyone as means to an end (data).

When it came time to enter the field, it was necessary to put these values into practice. The following section demonstrates how I strove to uphold ethical standards and maintain a child-centred approach in the field.

Informed Consent and Confidentiality

Obtaining informed consent is a standard ethical procedure in human based research. It involves making participants aware of the nature of the research and disclosing information to enable them to make an informed decision regarding participation. When working with children, this extends to presenting the research and involvement in a language that they can understand, emphasizing that participation is voluntary, explaining how data will be used, and clarifying what is expected of them (Hill, 2005; Morrow, 2008).

In introductory meetings in the classroom, I introduced myself and explained that I was a student at Trinity College. I described my aims, stating that I was trying to design a survey that measured how children from different backgrounds got along and also asked important questions about their lives. In order to do this, I emphasized that I needed their help because the only way for adults to learn about kids is to talk with kids. I then emphasized “three important things” to remember about the project. These were: 1) participation was voluntarily, which meant that it was their decision whether or not they wanted to be involved; 2) all responses were ‘confidential’, which meant that I would not tell anyone (friends, parents, teachers) their responses and I would never use their names; and 3) this is not a test and there are no ‘right’ or ‘wrong’ answers. During this introductory session, I handed out child and parental consent

forms and information sheets.²¹ I encouraged children to go home and talk with their parents about the project. When I returned to the class for the fieldwork stage, I re-emphasized the “three important things to remember” about participation before beginning. During qualitative interviews, I reminded each child of these facts individually.

With school-based research, obtaining informed consent is complicated by the contextual power structure. An inevitable power imbalance exists between children and adults (Cocks, 2006; Mandell, 1988; Morrow & Richards, 1996). This is particularly salient in the school context, where adults make rules and children are expected to comply, silently and obediently. This dynamic regularly plays out through the delegation of schoolwork, the revocation of privileges, the enforcement of punishment, and schedule management (to name a few examples). The rules are quite simple: as a child, you do what the adults tell you to and you don't ask why. An idiom used by some primary school teachers in the United States explains: “you get what you get and you don't get upset”. The power imbalance poses an ethical hurdle when seeking informed consent. Even when adopting the ‘least adult’ role, my position as an adult in a school did not go unnoticed²². Therefore, children may have been uncomfortable or unwilling to participate but feel pressured to do so because of the standard adult / child role in the school.

In an attempt to minimize this, consent was treated as an on-going process through-out the course of project (Flewitt, 2005; Goredema-Braid, 2010; Lambert & Glacken, 2011). In practice, this meant that children were permitted to withdraw participation at any time. For example, while completing the survey, some children would say “do I *have* to do this whole thing?” or “can I stop now?” When teachers were present, they were quick to respond “yes, you have to finish it”. From researcher's perspective, it was tempting to stay silent, let the teacher's word be the final word, and ‘get the data’. However, from an ethical and child-centred standpoint, it was important to clarify that consent was voluntary and could be withdrawn at any time. Inevitably, this resulted in incomplete or lost data for certain children, which was frustrating as I struggled to secure participants throughout the course of the fieldwork. However, my ethical guidelines and personal commitment took priority over ‘getting the numbers’, as is often heard in quantitative research (Lindsay, 2005).

Similar situations arose in qualitative data collection. All children were told prior to the interview that they could skip any questions by simply saying ‘skip’ or ‘pass’. In practice, very few children skipped questions. However, at times, they chose to skip questions that were

²¹ Consent forms and information sheets are included in Appendixes E and F.

²² This is modelled off of Mandell's ‘least-adult’ approach to conducting research with children (1988). In this approach, the researcher attempts to minimize the power imbalance and social differences between adults and children by finding value and meaning in the social worlds of children.

considered contextually important. Here, the commitment to voluntary participation outweighed a desire to gather information. An example of this is presented below:

Interviewer: And are both of your parents from (locality)?

Jasmine: Eh, no. One of my parents... can I skip that one?

Interviewer: Sure. You want to skip that one?

Jasmine: Yeah

Interviewer: Ok, so I'm going to ask some questions about your classmates...

-R206, Irish / Philippina girl, third class

Even after obtaining verbal and written consent, I observed children's body language, gestures, and nonverbal actions to keep an eye out for signs of unwillingness to participate (Bélanger & Connelly, 2007; Harcourt & Conroy, 2005). If a child appeared uncomfortable, I would ask them if they were 'tired' of the interview and wanted to return to the classroom.

In addition to obtaining and maintaining consent, I informed children and parents about confidentiality and the limits of confidentiality. Children were told that their answers were private and anonymous at several stages throughout the course of the research, including during introductory sessions and immediately prior to administration. I emphasized that nothing would be repeated to teachers, friends, or parents. However, when conducting research with children, there is always the possibility that a child will disclose information revealing that the child or another child is in a potentially harmful or dangerous situation. Although rare, these instances may occur and it is the researcher's responsibility to follow Child Protection Protocol and report the incident to his or her advisor.

Prior to qualitative interviews, all participants were made aware of the limits of confidentiality. They were told that the only time that I would talk to someone about what they said is if I felt that the child or another child is in danger. I told all children that if I felt like someone was in danger, I would have to talk to another adult about it but that I would talk with them about it first. Thankfully, no child protection issues arose during the course of the project and confidentiality was maintained for all participants.

Ethical Grey Areas

Standardized child protection policies, as described above, aim to guard children against physical abuse, sexual abuse, emotional abuse, and neglect. However, there are numerous possible situations in which a child may experience harm without being abused such as bullying,

social exclusion, mental health illness, living in poverty and drug use. There is no overarching protocol for how researchers should respond when faced with children in distressing situations that are not included under the definition of child protection. Furthermore, it is unlikely that one could develop a blanket protocol that would be applicable to every potential 'distressing' situation.

In the current project, I used discretion and operated from a point of respect and sincerity for all children. In a few instances, children reported experiencing harassment or bullying in and out of school. No children became overly upset when talking about their experiences, though it was evident through their words and their body language that the issue was sensitive for them. In each instance where a child reported bullying, I asked them how they felt about the situation. I also asked if they spoke with an adult about what was happening. Then, I asked the children if they would like for me to talk to the teacher about the bullying. In all instances, the children did not want me to intervene. Respecting their autonomy and confidentiality, I assured them that I would not say anything. However, I told them that they if they changed their mind, they could come to me and I would talk to the teacher.

Having fun with the process

One of the most enjoyable elements of my adopted strategy was permitting children to have fun with the research process. When a stranger comes into a classroom, the excitement and novelty of the situation often results in children becoming chatty, giggly, and animated. This was most often the case when I was introducing myself to the class or administering surveys. Rather than react in a typically adult manner (ex: 'quiet down, class!'), I made a point of allowing children to chat and express their excitement. As a former teacher, my 'gut' instinct was to control the classroom. However, it was necessary to suppress this urge to distinguish myself (and thus, my research) from the authoritative adult figures in the school. This 'lax' approach to classroom behaviour occasionally resulted in children making enlightening comments about the measure while completing it. For example, as one girl made her way through the Olweus Bully / Victim outcome section, she looked up and said, "*if I see the word 'bully' one more time, I'm gonna go bleedin' mental*". Laughter erupted and the classroom focus was temporarily disrupted but in her comment, she also unwittingly provided valuable feedback about how children interpret the wording of the OBVQ items and the repetitious use of the term 'bully' on this measure.

At the end of every qualitative interview, I asked each child if they had any questions for me. Sometimes these questions were related to the study but more often than not, they were personal. Interviewer self-disclosure in qualitative research is a divisive topic, having been both criticized as unprofessional and lauded as a technique for rapport building (Abell, Locke,

Condor, Gibson, & Stevenson, 2006; Dickson-Swift, James, Kippen, & Liamputtong, 2007; Rubin & Rubin, 2005). It is my opinion that sharing some personal information when asked by participants is the respectful thing to do, particularly after asking them to share details about their own lives. Typically, I'd allow for a few minutes of non-topical conversation between myself and the child before returning to the classroom. Examples of these interactions are presented below:

Interviewer: Do you have any questions for me?

Laura: How do you spell your name?

Interviewer: K-A-T-E.

Laura: We're having loads of fun!

Interviewer: Do you have any questions for me?

John: Yeah, where are you from?

Interviewer: I was born in Boston.

John: What's Boston like?

These conversations did not contribute anything 'valuable' to the research project in terms of data. They did, however, allow for a personal exchange between myself and my participants and gave children the opportunity to 'turn the tables' on me after answering my many questions. Therefore, I believe that a willingness to engage in casual conversational exchanges and make room for humor or even 'silliness' in the research process is a quintessential part of conducting respectful, child-centered fieldwork.

Data Storage

Data was gathered on paper (quantitative data: behavioural observation notes, questionnaires) and via audio recordings (qualitative data: cognitive interviews). With regards to data storage, I adhered to the Data Protection Acts 1988 and 2003. Quantitative and qualitative data was stored confidentially on my office computer, housed in the Children's Research Centre. The computer is password protected and not used by anyone other than myself. No personal information was transferred to the digital documents. Consent forms and paper questionnaires remained securely stored in my office in a locked filing cabinet. They will be destroyed following the completion of this project.

3.7 - ANALYTIC APPROACHES: MAKING SENSE OF THE DATA

The mixed methods approach to instrument design generated a substantial amount of qualitative and quantitative data. The remainder of this chapter introduces the analytic approaches employed for interpreting the quantitative data, including confirmatory factor analysis, Mokken scaling analysis, and validation statistics. The analytic process for the cognitive interview data, including its influence on the development of the pilot measure, is presented in detail in Chapter Four.

CONFIRMATORY FACTOR ANALYSIS

Confirmatory factor analysis (CFA) is a type of structured equation modelling that examines the relationship between observed variables (e.g. survey items) and latent variables (e.g. factors that are inferred but not directly observed) (Jöreskog, 1969). CFA differs from exploratory factor analysis (EFA) in that it is hypothesis driven, based on existing evidence and theory. Rather than exploring data to see if factors are present, CFA requires researchers to pre-specify the intended outcome of the measurement model. The observed variables and their relationship to unobserved factors must be clearly defined prior to conducting the analysis. The researcher must also define model parameters, such as whether factors and items are permitted to correlate. CFA is widely used in the psychometric evaluation of new measures, as it is a functional tool for confirming the underlying dimensions of an instrument and the pattern of item-factor relationships (T. A. Brown, 2006).

Confirmatory factor analysis is an appropriate method of factor confirmation and validation for the current study for several reasons. When designing the current measure, I drew heavily on existing qualitative and quantitative research, international literature, and personal experience conducting qualitative interviews with children in multi-ethnic primary schools. Each item was conceptualized and designed to capture a specific dimension of an underlying construct. Prior to inclusion in the pilot questionnaire, each item underwent assessment in cognitive interviews with the target audience to evaluate its relevance. During pre-testing, items were edited, removed, or rephrased based on feedback from children. The measure, its indicators, and its underlying constructs were well defined, researched, and tested.

First, a CFA was conducted to confirm the presence of two latent contact variables, determined by twelve observed items. The model consisted of two latent factors (contact with Irish-born children and contact with migrant children), each predicted by six separate contact indicators. Then, a second CFA model was constructed to confirm the presence of three distinct variables related to inter-ethnic relations: ethnic bullying, perceived discrimination, and ethnic school

climate. Each factor in this model was predicted by five observed variables. Correlation among factors was permitted in both models, based on the expectation that these factors are interrelated in the everyday life of the child. A maximum likelihood (ML) estimation approach was employed using SPSS AMOS 20 software (SPSS, 2011). Maximum likelihood is the most widely used parameter estimation approach in CFA due to its noted consistency, efficiency, and robustness (Myung, 2003). Data underwent log transformations to meet ML's assumption of multivariate normality. While some data remained slightly skewed after transformation, all employed data was within the recommended guidelines for skew and kurtosis in CFA (Kline, 2011).

A number of absolute fit indices were used to evaluate how well the hypothesized models represent the structure underlying the data. The chi-squared test (χ^2) is the traditional method for evaluating overall model fit, though its known sensitivity to sample size and minor deviations of multivariate normality have resulted in the development of additional indices of fit to provide more well-rounded model interpretations (Hooper, Coughlan, & Mullen, 2008; R. P. McDonald & Ho, 2002). The normed chi-squared statistic (χ^2/df) minimizes the effect of sample size and is considered an acceptable indicator of fit if it falls below 5.0 (Wheaton, Muthen, Alwin, & Summers). The root mean square error of approximation (RMSEA) is regarded as one of the most informative and sensitive fit indices. It tells how well the model with unknown parameter estimates would fit the population's covariance matrix. The modern rule of thumb for RMSEA is that values below 0.07 indicate good fit, with values of 0.08 to 1.0 demonstrating mediocre fit (MacCallum, Browne, & Sugawara, 1996; Steiger, 2007). The goodness of fit statistic (GFI) calculates the proportion of variance explained by the estimated population covariance and describes how closely the model replicates the observed covariance. It's value is between 0 and 1, with values above 0.90 indicating good fit (Cheung & Rensvold, 2002). In addition to the absolute fit indices, two incremental fit indices were also used to evaluate model fit: the non-normed fit index (NNFI) (Bentler & Bonett, 1980) and the comparative fit index (CFI) (Bentler, 1990). These indices compare chi-squared to a baseline model rather than relying on chi-squared in its raw form. They are considered accurate regardless of sample size and both have good-fit recommendations of 0.95 and 0.90 respectively (Hu & Bentler, 1999).²³ Results of the CFAs are presented in the Chapters Four and Five.

²³ For a detailed discussion of CFA and goodness of fit indices, refer to Brown 2006 or Hooper 2008.

Choosing an appropriate IRT model depends on the nature of the data to be analysed and on the assumptions about the data in the intended application. Mokken models belong to a family of IRT known as Non-parametric Item Response Theory (NIRT) (Mokken, 1971). While not as widely used as parametric IRT models, Mokken models are gaining popularity and recognition in the social sciences and psychology as an effective tool for constructing and evaluating scales, analysing data, and providing a more nuanced and inclusive interpretation of quantitative data (Brouwer, Meijer, & Zevalkink, 2013; Egberink & Meijer, 2011; Murray & McKenzie, 2013; Ommundsen, Mörch, Hak, Larsen, & Van Derveer, 2002; Paap et al., 2013; Pernice, van der Veer, Ommundsen, & Larsen, 2008).

NIRT models differ from parametric IRT models in a few key respects. Most notably, they relax some of the stringent assumptions about non-linear behaviour of response probabilities enforced by parametric IRT models (Sijtsma & Molenaar, 2002). Parametric IRT models assume that ordinal data (e.g. Likert scales) can be interpreted as interval data. While this allows for a statistically robust interpretation of data, it restricts items that do not have equal discrimination. Often in social and psychological research, obtaining equal discrimination is not an intended outcome of measurement items. It can be the case that items are intentionally different in order to cover a range of scenarios that could appear on the latent trait (Wismeijer, Sijtsma, van Assen, & Vingerhoets, 2008). Therefore, there is no need to require response curves to have equal shapes and slopes, as it is not assumed that they are equally discriminating. The Mokken models do not conform to this assumption, allowing for items with a less regular response curve shape to be included in analysis with transforming the data. Furthermore, parametric IRT models are most effectively when applied to scales with high numbers of items (e.g. greater than 20). When designing a child-centered quantitative measure, this study aimed to use a smaller number of indicators to keep the survey as short and 'child-friendly' as possible. Most constructs were determined by only five or six indicators. Mokken models are appropriate for the evaluation of short scales and also for small sample sizes, making it an ideal IRT model for developing and testing child-centered measures (Junker & Sijtsma, 2001; Molenaar, 2001; Mooij, 2012).²⁴

In the current study, all items tested for Mokken scales are polytomous, meaning they have three or more possible response categories. When testing for fit with a polytomous Mokken model, there are few additional terms and points that must be noted before proceeding with a description of the analysis techniques.

²⁴ For a comprehensive discussion of non-parametric vs. parametric distinctions, refer to: (R. R. Meijer & Baneke, 2004; Rob R. Meijer, Sijtsma, & Smid, 1990).

Scaling with polytomous data complicates the relationship between latent trait and item difficulty by adding an additional conditional probability: a) the probability of responding in a given category, and b) the probability of responding positively rather than negatively at a given threshold (Ostini & Nering, 2006). In Mokken scaling, this problem is addressed by the incorporation of the concept of 'item steps' (Ivo W Molenaar, 1991). For each item (i) with (m) steps, the response categories are divided into (m) ordered areas known as 'item steps'. One could imagine a ladder with five stairs. There is a space between each stair, resulting in a total of four 'steps' to get from the bottom of the ladder to the top. The space between ordered responses on an item of measurement are referred to as 'item steps', and are used to analyze the difficulty between response categories (e.g. strongly agree vs. agree). In polytomous Mokken scaling, each item step is now treated as a new dichotomous variable whose difficulty is dependent on the following order of the item step parameters. The 'item steps' rather than the items themselves are considered in terms of their difficulty (van Schuur, 2003). The traditional item response function (IRF) used in dichotomous models is replaced with a Item Step Response Function (ISRF) (Sijtsma & Molenaar, 2002). For an item with five possible response categories, there are four item steps and therefore, four ISRFs. Plots of the regression of the observed item step scores against the rest score, which is the score of other items ($k-1$) without the score of g , can be used to check some of the assumptions of Mokken models.

ASSUMPTIONS OF MOKKEN MODELS

For a series of items to qualify as a Mokken scale, they must conform to a series of assumptions about the behaviour of item responses. To satisfy requirements for the most robust Mokken model, a doubly monotonous model, the items must meet assumptions for a) unidimensionality, b) local independence, c) monotonicity, and d) non-intersection. A description of these assumptions, the methods of testing for violations of the assumptions, and the significance of these on scale development is presented below. Once these assumptions are satisfied, the data has established a good 'fit' to the model and total score can be used to order respondents on the latent trait.

A set of items is considered **unidimensional** if all items measure the same latent trait or property. How to define and measure unidimensionality is debated among psychometricians. Sijtsma and Molenaar (2002) made a useful distinction to highlight two of the major interpretations of the assumption:

- a) The psychological interpretation is that all of the items measure one thing, whether that be an ability or a construct.

- b) The mathematical interpretation says that only one latent variable is necessary to account for the inter-item associations in the empirical data.

Mokken models assume that a scale taps into one, dominant, single trait, which determines how participants respond to items. It is important to clarify that this does not rule out the possibility of other dimensions existing within the measure, particularly with item sets. It means that items fitting the model are unidimensional (Nandakumar, 1994). This is an important distinction, particularly when operating from a theoretical recognition of the highly contextual world of the child. Unidimensionality does not assume that a measure assesses a single trait in a vacuum, independent from other underlying dimensions. Rather it assumes that all items on a given scale are measuring the same latent trait. Similar to unidimensionality is the assumption of **local stochastic independence** of items on the scale. This is a technical way of saying that a participant's response to a given item is determined by the participant's level on the latent trait and not by any other items on the scale (Nunnally, 1978).

In this study, unidimensionality and local independence were tested using Loevinger's homogeneity coefficient (Loevinger, 1948; Mokken, 1971). The scalability of each item pair coefficient (H_{ij}) was calculated by the ratio of the covariance of the items i and j . From the item pair coefficients, the item scalability coefficients (H_i) and the total scalability coefficient (H) were calculated. Item scalability coefficients determine the extent to which an individual item 'fits' the total scale. It is suggested that items with an H_i of lower than 0.3 should be removed from the scale, as it does not adequately tap into the dimension being measured. Total scale coefficients with $H < 0.3$ are considered non-unidimensional. Scales with H coefficients of $0.3 < H < 0.4$ are considered weak scales, $0.4 < H < 0.5$ are moderate scales, and $H > 0.5$ classifies as a strong scale. Higher H values indicate that ISRFs have steeper slopes, which means that items are more able to discriminate among levels of the latent trait.

The assumption of **monotonicity** states that the IRFs are non-decreasing. This means that participants with higher levels of a latent trait are more likely to endorse more 'difficult' items. For example, participants with a higher level of contact with migrant children (θ) are more likely to obtain higher scores on statements related to contact with migrant children.

Monotonicity was assessed for each item by replacing the unobserved latent trait value with a *restscore* (a sum score of all the items apart from the item in question). The assumption holds when individuals with larger restscores are more likely to endorse the item. To evaluate this, a minimum size for rest groups (*minsize*) was defined by the researcher. If adjacent groups didn't satisfy the minimum size, they were merged together. Large minsizes could result in too few restscore groups to effectively test for monotonicity, while very small minsizes could lead to

violations due to sampling error among participants. It is recommended that when working with samples of less than 250, the minsize should be set at approximately $N/3$ (Stochl, Jones, & Croudace, 2012). With the current sample size of 196, minsizes were set at 55 to maximize the number of groups without leading to false violations.

The three assumptions presented above satisfy the assumptions of the monotone homogeneity model (MHM) and are sufficient for many applications of NIRT. This project, however, aimed to meet the assumptions of the more restrictive double monotone model (DDM). DDM requires the satisfaction of one additional assumption: **non-intersection**. As the name suggests, this requires that ISRFs do not intersect. For polytomously scored items, meeting this assumption requires additional an examination of item ordering. Invariant item ordering and non-intersection were checked by compiling a list of IIO violations. If significant violations appeared, they were analysed further to determine the severity of the violation and possible causes.

If a set of items meet the assumptions described above, they have satisfied the criteria for a Mokken scale. Perhaps more importantly for this project, the items have also undergone a rigorous and nuanced evaluation procedure. Items with weak discriminations and strong discriminations have been distinguished. Items that aren't sufficiently homogenous with the others have been identified. Person fit statistics can be calculated, allowing for individual analysis if desired. The assumptions of Mokken models require measurement instruments to adhere to high standards of reliability that classical test theory approaches cannot achieve. The results of the Mokken scaling analyses are presented in chapters five and six.

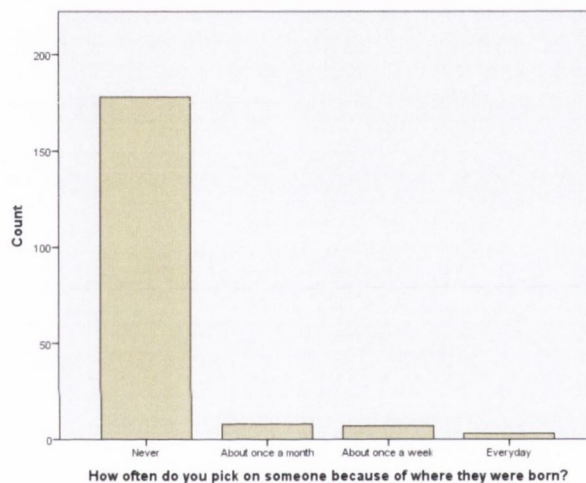
ORDINAL DATA, TRANSFORMATIONS, AND THE ASSUMPTION OF NORMALITY

In the social sciences, ordered response categories are widespread and found in most psychological, behavioural, and attitudinal measures. Despite the prevalence, on-going debate exists among psychometricians regarding the suitability of ordinal data for parametric statistical tests and CFA (Jamieson, 2004; Kuzon Jr, Urbanek, & McCabe, 1996). Common arguments centre on ordinal data's inability to meet the stringent assumptions imposed by parametric tests such as normal distributions. This is due to the nature of ordered response categories. Regardless of sample size, achieving a normal Gaussian bell curve with a four item Likert scale is inevitably more difficult than with an equal scale variable such as age or income (Lord, Novick, & Birnbaum, 1968).

Much of the raw data produced in this project was ordinal and had highly abnormal distribution. Many items featured only three or four response categories, making the achievement of normal distribution extremely unlikely. Furthermore, items related to sensitive

topics such as ethnic bullying were additionally skewed because of the content of the questions. The frequency tables presented in Chapters 5 and 6 demonstrate the abnormal response pattern to these items, as relatively few children reported bullying others or experiencing bullying. It was never the intention of the researcher to achieve a normal distribution with regards to items on topics such as bullying and perceived discrimination. The aim was to capture an experience that is not necessarily widespread or symmetrical, but extremely important to identify, distinguish, and explore. Figure 5 shows the extremely abnormal distribution of the raw data from one bullying item.

Figure 5: Skewed distribution of an ethnic bullying item



Nonparametric item response theory analysis does not assume normal distribution of the data, which is one of the many strengths of an NIRT approach. Confirmatory factor analysis, Pearson correlations, and regressions do require multivariate normality to ensure an unbiased output. To prepare abnormally distributed data for CFA and parametric CTT tests, a series of transformations were performed and compared. Data underwent log, square root, and rankit transformations (Bland & Altman, 1996). Normality, variance, skew, and kurtosis were compared among the transformed variables and the original variables to determine the best option for analysis. In most of the data, the rankit transformations were most powerful in adjusting the distribution without compromising the variance or the range. For the Mokken scaling analysis, original data was used for all items. For CFA, Pearson's correlations, and regressions, log transformed data was used. Slight deviations from normality remained in some of the data, even after undergoing transformations. The deviations were not large enough, however, to invalidate the data for CFA and parametric CTT tests (Carifio & Perla, 2008).

CHAPTER 4: FINDINGS FROM THE COGNITIVE INTERVIEWS

This chapter provides an in-depth look at the cognitive interview (CI) procedure, the data generated, and the analysis which led to the construction of the pilot measure. The aim of the cognitive interview pre-test was twofold:

- First, it sought to explore the validity and applicability of a wide range of pre-test questions for inclusion in the pilot measure.
- Second, it served as tool for gathering contextual, in-depth qualitative data on inter-ethnic relations in multi-ethnic primary schools.

This chapter begins by considering the benefits and challenges of conducting cognitive interviews with children. Then, the CI approach and analysis strategy adopted by this project are presented. The content of the pre-test measure is introduced, structured within the framework of Bronfenbrenner's Ecological Model of the Child. Next, each subsection of the pre-test measure is discussed in detail, examining problematic items and considering strategies for revision or removal. Given the very large amount of items included on the pre-test (92), not each item is discussed in detail. Problematic and revised items are discussed and then a summary table of the items including identified problems and solutions are presented for each subsection. The chapter ends by presenting the pilot measure items, informed by the feedback from the cognitive interview pre-test.

4.1 - COGNITIVE INTERVIEWS WITH CHILDREN: CHALLENGES & BENEFITS

The process of responding to questions in a CI style can be strange for all participants, regardless of age. We are not preconditioned to be aware of the cognitive processes at work as we respond to questions. Rather, many of us find answering questions to be automatic and routine. Therefore, it is the responsibility of the researcher to make the procedures and expectations of the cognitive interview abundantly clear to participants (Drennan, 2003). When conducting cognitive interviews with children, the need for groundwork and clarity is further magnified. Children, even more so than adults, are unacquainted with their cognitive processes as they respond to questions (Woolley et al., 2006). Particularly in the context of the school, where the expectation of silence is continually reinforced, 'talking through' a response may feel especially foreign for some children. In this setting, the onus falls on the researcher to build rapport with the child, make the purpose and expectations of the interview explicitly clear in child-friendly terms and consistently reinforce the message that they interview is not a test.

A researcher also must be mindful of the cognitive development of the child when considering this method. The age of seven is widely recognized as a turning point in child development, as children then enter into 'middle childhood' and acquire key logical skills such as reading and additional language mastery (Piaget & Inhelder, 1969). Thus, it has been argued that seven is the age at which children can reliably complete age-appropriate, structured questionnaires and surveys (de Leeuw, Borgers, & Smits, 2004). Children participating in this pre-test ranged in age from seven to eleven. However, the ability to respond to survey items is dependent on cognitive ability, not merely age. As a researcher, it was important to be mindful that age is not necessarily a determinant of a child's ability to reliably respond to survey items.

Despite the challenges, the use of cognitive interviews for child-based questionnaire design and validation has been found to be highly effective. They allow for a thorough examination of the many components that may contribute to poor validity in child-based survey research including cognitive interpretation, inappropriate terminology, generational cultural differences, and item comprehension (A. Bell, 2007; de Leeuw et al., 2004; Drennan, 2003). When administered carefully, cognitive interviews are capable of capturing a wide range of problematic elements inherent in a pre-test survey, contributing to the development of a robustly valid, child-centred quantitative measure.

4.2 - COGNITIVE INTERVIEW ADMINISTRATION APPROACH

There are many different methodological tactics for conducting cognitive interviews including think-aloud methods, probing methods, and retrospective questioning (Drennan, 2003). Keeping in line with the flexible approach to fieldwork, a flexible approach to cognitive interviewing was also implemented. Two main techniques were used in the current study: the think aloud method and probing.

The think aloud method is a particularly useful tool for understanding cognitive processes, as it allows researchers to discover whether children are interpreting items as intended, as well as uncover factors that guide their decision making process. It achieves this by asking participants to verbalize their thoughts as they respond to a question, making the cognitive processes of comprehension, retrieval of relevant information, decision, and response apparent to the researcher (Ericsson & Simon, 1980; Willis, 2005). However, the think aloud method can be difficult for some participants, particularly children, as they may feel unable to properly articulate their thought processes as they answer a question (Drennan, 2003). Furthermore, this technique is particularly suited to children who are vocal and comfortable sharing their thoughts and opinions, but is not necessarily the best approach for others who may be shy in an interview setting.

The probing technique is broader and more flexible than the 'think aloud' method. It involves asking additional questions after a survey item to gain a deeper understanding of the cognitive interpretation of items (Willis, 2005). This method is far more conversational than the think aloud method and thus, more comfortable for many child participants. A preliminary list of probe questions was created prior to beginning fieldwork. The scripted probes were based on a framework set out by Miles and Huberman (1994) and included the following types of questions:

- *Comprehension probe*: "What does 'bullying' mean to you?"
- *Paraphrase probe*: "How would you say that if you were talking to one of your friends?"
- *Specific probe*: "Why do you think that he likes to play by himself at yard time?"
- *Process probe*: "Can you tell me how you decided that answer?"
- *Elaborative probe*: "Could you tell me that story?"

These questions helped to spark conversations with children, to gain additional information on how children comprehended an item, and to ensure that the researcher was interpreting a child's response accurately. Additional, unscripted probes were used in situations where the predefined scripted probes were inapplicable

4.3 - COGNITIVE INTERVIEW ANALYTIC APPROACH

As with other forms of qualitative data, there is not a clear, standardized method for analysing cognitive interview data (Drennan, 2003). The current study built off of analysis approaches proposed by Willis (2005) and Knafl et al (2007), involving three stages of analysing and reviewing cognitive interview data. The purpose of the analysis was to guide decisions regarding the inclusion, revision, or omission of items.

First, after transcribing the interview verbatim, an interview level review was conducted. This involved reading an interview in its entirety, flagging potentially problematic items, and making a few notes about the participant's overall understanding of, and experience with the measure. Second, an item-level review was conducted, which involved collecting all of the qualitative data for each individual item to holistically explore interpretation, wording issues, and response patterns for each item on the pre-test. This served to distinguish between well-functioning items and potentially problematic items. Finally, a short, descriptive summary of each item was constructed. This included a description of the item, classified any problematic issues that the item had, and made a recommendation for inclusion, revision, or omission based on these issues. A list of problematic issues was developed to guide the classification of pre-test items:

- *Wording issues:* Children did not understand specific words in the item or what the question was asking.
- *Interpretability Issues:* Children interpreted the question in different ways, suggesting that the item is ambiguous or vague, or they interpreted the item in a way other than what was intended by the researcher
- *Content Issues:* The content of the items or the underlying construct was inappropriate, inapplicable, or offensive.
- *Redundancy:* The item was redundant with another item on the measure.
- *Administration Issues:* Items which were problematic for administering a pen and paper pilot questionnaire.

These classifications were based on some of the key problems identified in the cognitive interviewing literature, as well as problems specific to the current measure (Knafl et al., 2007; Latcheva, 2011; Shariff-Marco et al., 2009).

4.4 - ADMINISTRATION PROCEDURE

All cognitive interviews were conducted face to face, in an area provided by the school. As mentioned in chapter three, one school did not consistently have a private space for interviews, so there were occasional disruptions to the process in this school. Interviews were audio recorded, after obtaining consent from the child.

Prior to each interview, I re-explained the aims of the research and the purpose of the project. Emphasis was placed on the fact that I was designing a survey and I needed help from children in order to make it as 'child-friendly' and appropriate as possible. Children were reminded that they could stop the interview at any time, skip any questions that they didn't want to answer, and ask questions whenever they arose. I reminded them that this was not a test, and the best answer that they could give would be an honest answer. I then provided them with an example of a 'think aloud' response to a question.

Children were provided with their own copy of the questionnaire so they could follow along and provide feedback on the format. Some children wanted to fill the questionnaire out manually during the interview, which I permitted as it seemed to enhance their enjoyment of the process:

Interviewer: Would you say that you have fun at school out of these three?

Brian: (pause) Do I have to write it?

Interviewer: No, you can just say.

Brian: I think I would like to write it.

-R209, multigenerational Irish boy, third class

In addition to the questionnaire, children were also provided with visual prompt cards that displayed the response categories in large, bold letters. A total of four prompt cards were used, which corresponded with the response categories available for closed format questions.²⁵ Each item was read aloud and most were followed up with probe questions. This made the interview more conversational and comfortable for the participants. Some children welcomed the 'think aloud' approach and were clear and explicit in their decision-making processes throughout the interview. Others were less comfortable with this approach and probe questions were relied upon more heavily in these interviews to elicit additional information.

4.5 - PRE-TEST MEASURE AND COGNITIVE INTERVIEW ANALYSIS

The content of the pre-test measure was informed by existing qualitative research on the nature of inter-ethnic relations in Irish primary schools, and by personal experience conducting qualitative research on one of these projects (Bryan, 2009a; Curry et al., 2011; Deegan, Devine, & Lodge, 2004; Devine & Kelly, 2006). Following guidelines recommended by Furr (2011), all underlying constructs were articulated and conceptualized prior to item construction and arranged coherently in Bronfenbrenner's ecological framework. As is recommended for pretesting, the initial selection of items was 'over inclusive' (Clark & Watson, 1995) and consisted of a multitude of items arranged in nine sections. Table 7 presents an overview of the measure and items arranged by section.

²⁵ Prompt cards are included in Appendix B.

Table 7: Overview of the pre-test measure arranged by section and items

Section A: School	8 questions on length of time in current school, enjoyment of school, and attitude towards a multicultural schooling environment.
Section B: Classmates	23 open-ended questions asking about who children sit next to in class, who they play with at yard, out-of-school time contact with classmates, classmate preferences, and bullying questions.
Section C: Inter-ethnic Contact	18 questions on children's levels of contact with children who were born in Ireland and children who were born outside of Ireland. All questions had Likert style response categories: a) Never, b) About once a month, c) A few times a month, d) A few times a week, and e) Everyday. It also included a question asking children where their best friends were from.
Section D: Bullying	6 questions on bullying behaviour in school, with a focus on ethnic bullying. Questions focused on bullying others, getting bullied, and witnessing others getting bullied. Children were first asked if they had experience with the form of bullying and if their response was yes, they were asked an additional series of questions specifying the type of bullying behaviour and the target of the bullying behaviour. Additional questions looked at location of bullying and personal responses to bullying.
Section E: Neighbourhood	6 questions on children's enjoyment of their neighbourhood, their social relationships in their neighbourhood, and the ethnic composition of their neighbourhood.
Section F: Attitudes towards migrants (majority group only)	12 questions on attitudes towards migrants, including both positive and negative statements. Items were presented in a Likert style format with the following response categories: a) Not true, b) True sometimes, and c) True most of the time.
Section G: Discrimination and Difficulties	10 questions on children's perception of discrimination. All questions had Likert style response categories: a) Never, b) A few times, and c) Many times.
Section H: Free time	4 questions on children's free time activities including involvement in structured out of school time programmes.
Section I: You and your family	6 questions on children's family structure, religion, birth country, and parents' birth countries.

Two versions of the pre-test measure were constructed: one for use with multigenerational Irish children and one for use with minority children. The only difference between these two measures was the inclusion of an 'attitudes towards migrants' section on the multigenerational Irish questionnaire. Existing qualitative research in the local context established that some majority group children held stereotypical attitudes towards migrants that are more commonly espoused by adults (i.e. migrants take jobs from Irish people) (Curry et al., 2011). These questions were included to assess the extent to which these beliefs were present among majority group children. They were not applicable for use with minority children, and thus were not included in their version of the pre-test measure.

One overarching aim of the project was to design a measure that was broad and cohesive, capturing many dimensions of inter-ethnic interaction both in and out of school time.

Bronfenbrenner’s Ecological Model of the Child (1979) was used as a conceptual framework for the design of the questionnaire, as it provided a comprehensive and interconnected contextual structure for item development. As discussed in chapter two, Bronfenbrenner’s model recognizes the system of relationships that form a child’s developmental environment. These systems are overlapping, interactive, and influential on a child’s development. However, the child is not passive in this model, as he or she also reciprocally influences and interacts with the systems (Bronfenbrenner & Bronfenbrenner, 2009).

The initial construction of pre-test items was based on this interactive model of development. The aim was to include questions that would evaluate components from all four ‘layers’ of the child’s environment: the individual level, the microsystem (school, family, peers), the exosystem (neighbourhood, wider community), and the macrosystem (attitudes and ideologies of the culture). Table 8 presents the subsections of the measure and the corresponding layers from the ecological model. As can be seen, a particular set of questions could be applicable to more than one environmental layer. For example, the inter-ethnic contact items assessed casual forms of contact (that could take place on the exosystem level), as well as more intimate forms of contact (that could take place on the microsystem level).

Table 8: Sections of the pre-test measure arranged by the Ecological Model framework

Ecological layer	Corresponding section from the pre-test measure
Individual (age, gender, ethnicity, religion)	Section I: You and your family
Microsystem (family, church, school, peers)	Section I : You and your family Section C: Inter-ethnic contact Section D: Bullying Section B: Classmates Section A: School
Exosystem (neighbourhood, social services, wider community)	Section C: Inter-ethnic contact Section H: Free time Section E: Neighbourhood
Macrosystem (attitudes and ideologies of the culture)	Section G: Attitudes towards migrants Section F: Discrimination and difficulties

In total, the pre-test measure for multigenerational Irish children included 93 items, while the measure for minority children included 81 items. Each version was administered along with four well-established, standardized outcome measures: the Olweus Bully Victim Questionnaire, the Piers Harris Self-Concept Scale, the Perceptions of Racism in Children and Youth Scale, and the Depression Self-Rating Scale. The remainder of the chapter looks at the pre-test measure in

detail, presenting the cognitive interview data and evaluating each item in terms of its appropriateness for inclusion in the pilot.

SECTION A: SCHOOL

Section A served as an introduction to the interview and included broad questions about children's schooling experience. In addition to the closed format questions, a few open-ended questions were asked to get children comfortable with the interview process. These questions were included as ice-breakers rather than as pilot test questions. The section contained the follow questions and response categories (in parenthesis):²⁶

- What class are you in? _____
- How long have you been going to this school? _____
- Do you enjoy being at school? (*most of the time, sometimes, never*)
- Do you have fun when you're at school? (*most of the time, sometimes, never*)
- Do you feel comfortable when you're at school? (*most of the time, sometimes, never*)
- Do you feel like you belong at this school? (*most of the time, sometimes, never*)
- There are people from all over the world who go to your school. How do you feel about going to school with people from all over the world? (*I like it, I don't like it, I don't mind it either way*)
- What do you usually do during yard time? _____

On the whole, the school-based questions were straightforward and most children comprehended them in the intended manner. There was some confusion with wording on the item 'how long have you been going to this school'. Most children found it easier to retrieve the class year when they started at the school rather than calculate the number of years that they had been in the school.

Interviewer: And how long have you been going to this school?

Mike: Since first class. So I guess for 3 and a half years.

---R102, second generation Nigerian boy, fourth class

Interviewer: And how long have you been going to school here?

Jackie: Um, I don't really know.

Interviewer: OK. When did you start going to school here?

Jackie: Junior infants.

---R204, multigenerational Irish girl, third class

²⁶ Questions without response categories are open ended

When asked about enjoyment of school, children often considered a range of school-time features including academic work, social elements, and teachers when selecting their response.

Interviewer: When I ask a question like “do you enjoy school”, do you think mostly about schoolwork?

Laura: No, I think about my friends as well.

---R301, multigenerational Irish girl, second class

Interviewer: And would you say that question any differently?

Juliana: I don’t get what you mean by differently.

Interviewer: So for instance, would you – do you think that a question like “do you enjoy being at school” and a question like “do you like school” – do you think those are the same or different?

Juliana: I think it would be like the same. Yeah. I think it’s the same because it’s just like, because it says like “would you like being at school” and that one says “do you enjoy school” – that’s kind of just like the same. I say I enjoy school most of the time because I like school most of the time.

---R109, second generation Brazilian girl, fourth class

The question that had the most varied, subjective response pattern was ‘do you feel comfortable at school’. Children seemed to have different ideas of what made them ‘uncomfortable’, ranging from physical to emotional discomfort, suggesting a problem with interpretability.

Interviewer: Is there some time you don’t feel comfortable at school?

David: If I’m mostly in trouble.

---R104, first generation Nigerian boy, fourth class

Interviewer: OK. And do you feel comfortable when you’re at school?

Najea: (pause) sometimes.

Interviewer: Sometimes? Ok. And what are some things that make you uncomfortable at school?

Najea: Eh, (pause) doing history, current events.

---R207, first generation Nigerian girl, third class

Interviewer: When are you comfortable at school?

Megan: When we do show and tell, we're comfortable because we sit on the cushions and then there's not really another time when we're comfortable except during golden time when we can go to library and read some books.

---R204, multigenerational Irish girl, third class

Interviewer: And what do you think that this question means? There's not a right or wrong answer. I'm just curious (referring to 'do you feel comfortable at school' question).

Jessika: Um, yeah, sometimes. Because I didn't know how to speak English but my mom or my dad they just put me in this school and I didn't feel very comfortable here but then I got used to it.

---R110, first generation Angolan girl, fourth class

Another item that raised difficulty in this section was 'do you feel like you belong in this school?' The item had issues with regards to wording, interpretability, and content, as some children didn't know the word, others interpreted it in varied ways, and some couldn't explain the reasoning or process behind their response.

Interviewer: And would you say you feel like you belong when you're at school?

Jackie: No.

Interviewer: Ok. Why not?

Jackie: Eh, I just think so. I don't really know why but I just think so.

---R208, multigenerational Irish girl, third class

Interviewer: So what do you think that question means?

Shane: So like, if you think you belong in school or if you want to stay at home.

---R313, multigenerational Irish boy, second class

Interviewer: OK. So would you say that you feel like you belong at this school?

Eoin: What does that mean?

---R304, multigenerational Irish boy, second class

Two questions were presented in an open-ended response format: 'what makes you feel good at school' and 'what do you do at yard time'. These items were included as ice-breakers for the pretest and would not be applicable for the content or administration format of the pilot measure. Overall, three schooling items were retained as is, two items were revised for

inclusion on the pilot, and three items were removed. Table 9 presents a summary of the schooling items.

Table 9: Revision of the 'school' items based on cognitive interview data

Pre-Test Item	Problematic Issues	Solution	Pilot Item (if applicable)
What class are you in?	None	N/A	What class are you in?
How long have you been going to this school?	Wording	Revision, including closed format response categories	When did you start at this school?
Do you enjoy being at school?	None	N/A	Do you enjoy being at school?
Do you have fun when you're at school	None	N/A	Do you have fun when you're at school?
Do you feel comfortable at school?	Interpretability	Revision	Do you feel happy when you're at school?
Do you feel like you belong at this school?	Wording, content, interpretability	Omission	N/A
How do you feel about going to school with people from all over the world?	Administration, content: Item not relevant to final measure	Omission	N/A
What do you usually do at yard time?	Administration, content: Item not relevant to final measure	Omission	N/A

SECTION B: CLASSMATES

Section B included 23 open-ended questions about children's classmates and the various ways that they interact, both in and out of school. Children were asked a question (i.e.: who do you sit next to in class?; who do you invite over to your house?) and were allowed to list as many classmates as they wanted.

While these peer nomination questions were tested for inclusion in the pilot, it was decided to remove these items prior to the pen and paper survey due to several ethical and administrative issues. From an ethical standpoint, the inclusion of peer nomination items on the pilot questionnaire would have necessitated the generation of class lists for the purpose of analysis. As not all children and parents gave consent for participation, this would have presented an ethical hurdle. Furthermore, principals and teachers may have been hesitant to release class information to a researcher, as it could be perceived as a breach of confidentiality and requires additional effort on the part of the school. From an administration standpoint, including the sociometric items on the pilot would have significantly increased the time needed to complete the already lengthy measure, as it requires children to respond in open-ended format rather

than simply tick boxes. The younger children in the sample are in the early stages of acquiring writing skills, and may not have been able to respond to these questions with efficiency and ease. From a researcher's perspective, conducting sociometric analyses on the dataset would have required the acquisition of additional software and a substantial time commitment during an already extensive analytic stage. Finally, a main aim of the research was to design a practical measure of inter-ethnic relations that is appropriate for use applied settings such as schools and after-school programs. Interpretation of sociometric questions is not straightforward and would likely be cumbersome and labour-intensive for many practitioners in an applied setting (Cillessen, 2009). Therefore, it was decided to omit the sociometric questions from the pilot survey. While these items were not used in the quantitative validation of the new measures, the qualitative data generated by these items during the pre-test offered detailed information on the nature of children's inter-ethnic relations and served to build construct validity.²⁷

SECTION C: INTER-ETHNIC CONTACT

Children's friendships are known to be fluid, dynamic, and often changing (Ahn, 2011; Bowker et al., 2006; Cairns, Leung, Buchanan, & Cairns, 1995). This has been widely reported in the literature and was reinforced through qualitative findings on this current study.

Lana: Well it's kind of confusing because this girl called Alex in my class and this girl called Diana in my class, they – they're not friends anymore. Like a vase – like Alex's on one vase and Diana's on the other vase and then it breaks and so we have to find a way to fix it.

Interviewer: So what happened? I thought they were best friends?

Lana: Yeah they were but then we were doing work, Alex drew a picture of Diana and it wasn't really a nice picture and then Diana told and then Alex was like "why did you need to tell on me"? So now they're not friends anymore.

---R108, second generation Nigerian girl, fourth class

There was also a tendency among some of the younger children, in particular, to assign the label of 'friend' to everyone in their class or greater social network.

Interviewer: Who are your best friends in class?

Tara: Everyone cause I don't have – it wouldn't be fair then.

²⁷ A complete list of peer nomination questions is included in Appendix B

---R303, multigenerational Irish girl, second class

Interviewer: Who are your friends in class?

Rian: Everyone. Yeah... like we're all friends.

---R310, multigenerational Irish boy, second class

It may be true that these children conceptually identify all of their classmates as friends. However, it is difficult to measure the true nature of inter-ethnic relations and friendship when children include all of their peers, including those who they don't regularly interact with, under the umbrella of 'friendship'. This tendency towards labeling everyone as a 'friend' was also evident in problematic peer relations, including situations of peer exclusion, teasing, or maltreatment.

Well they just say things about me and she'd talk about me and talk about Lina. And sometimes she'd say mean things to Lina but Lina wouldn't tell because we, like, *are* friends with her but she just keeps annoying us.

---R101, second generation Nigerian girl, fourth class

And cause before my friends used to, to call me names in first class and call me 'show off'.

---R305, multigenerational Irish boy, second class

They're like best friends so they started to play by themselves and then they didn't want me to play with them but I'm still friends with them.

---R208, multigenerational Irish girl, third class

There's this girl, she's my friend. She said I need to be on a diet and she poked me with a stick on my belly and she pushed my hair down.

---R109, second generation Brazilian girl, fourth class

Given the broad, all-inclusive, and often changing nature of many friendships among children, it was decided to attempt to measure inter-ethnic relationships on the basis of something more concrete, tangible, and quantifiable. The contact section aimed to capture inter-ethnic *contact* between children, ranging from more common types of contact (talk together in school) to more intimate forms of contact (play over at someone's house). Rather than rely on terms and labels which are widely open to subjective interpretation, the contact section asked children how often they engaged in certain activities with their peers. Of course, subjective interpretation influences these items as well, but they aim to capture behavior rather than sentiment.

Furthermore, deciding how to word the measure of inter-ethnic contact was one of the biggest obstacles of the design process. Previous research has relied on terms such as 'Irish' or 'native' to describe majority group children and 'migrants' or 'newcomers' to describe minority group children (Curry et al., 2011; Smyth et al., 2009). However, these terms are no longer suitable for describing inter-ethnic relations in Ireland. Over the past five years, children of migrants have entered the school system as Ireland's first wave of second generation migrants. They are not migrants, nor are they newcomers. They were born and raised in Ireland. They self-identify as Irish and speak with Irish accents. Some have never been to their parents' home country. This society is what they know and what they identify with. Therefore, relying on terminology employed in previous studies of inter-ethnic relations among children in Ireland would have been inaccurate.

This problem was compounded by the fact that much of the child-based inter-ethnic research in Ireland up to this point has been qualitative. There is not a precedent for how to describe the complex gradations of national and ethnic identity in succinct terms with children. For example, how should a quantitative measure describe minority children on a measure of inter-ethnic contact? With adult populations, it would have been possible to rely on words such as 'migrant' and 'second generation migrant' when asking questions about contact and social behaviour. With children, however, these terms are not cognitively appropriate, nor are they principled. Children are in the process of navigating and defining their own personal and social identities. Many of the second generation migrant children I spoke with self-identified as Irish, not as 'Nigerian-Irish' or 'Moldovan-Irish'. In fact, 'second generation migrant' was not a term that was personally employed by any of the children in the study. Therefore, relying on it as a term in a quantitative measure would have been cause for confusion, and also could have imposed a classification on certain children when they had not yet considered the issue for themselves.

In trying to find a child-friendly and respectful way of distinguishing between contact with multigenerational Irish children and minority children, I considered asking children about their levels of contact with children whose parents were from outside of Ireland. However, when initially exploring children's level of understanding of their peers national and ethnic backgrounds, I discovered that this would not be an adequate solution to the problem of assessing contact.

Interviewer: OK. And do you know if all of their (classmates) parents are born in Ireland?

Megan: Um, I don't know.

---R204, multigenerational Irish girl, third class

Interviewer: And out of your friends, do you have any friends whose parents were born in Ireland too?

Malik: Not that sure. I think Jennifer's mom was born in Ireland, I'm not sure.

---R103, second generation Nigerian boy, fourth class

Interviewer: And are his parents from Ireland, too?

Jackie: I don't know because I've never asked.

---R208, multigenerational Irish girl

Interviewer: So would you know where most of your friends' parents were born?

Lana: (pause) Well, if I look at their faces I think I might know.

---R108, second generation Nigerian girl, fourth class

As these examples show, measuring inter-ethnic contact on the basis of friends' parents' national backgrounds would have been convoluted and complicated at best, and unreliable and mis-informative at worst. With classmates and friends, however, children showed a higher level of sophistication with regards to knowledge of ethnicity and national background.

Interviewer: And is she from Brazil as well?

Juliana: No. She was born in Angola but moved to Portugal.

---R109, second generation Brazilian girl, fourth class

Well, Lina is Irish but her dad is from Moldova and her mom is Chinese.

---R101, second generation Nigerian girl, fourth class

Krystal is from Africa and so is Damien. I think Ahmed is from... Egypt.

---R202, multigenerational Irish boy, third class

Even when children were confused as to the actual country of origin, they were typically cognizant of which classmates had migrant backgrounds.

I think he is from Australia. He still has like white skin though and his mom is from Australia. Or from Africa. I don't know. You know how you get places like India and Africa and Australia mixed up? Cause they kinda all have "A"s.

---R315, first generation Pakistani girl, second class

Interviewer: Is there anyone else in the class from somewhere different?

Cormac: Fatima's a Libyan. Ali is a Libyan, I think. And Sofia is from a place that I don't know. That's it.

---R307, multigenerational Irish boy, second class

Olu is from – I don't exactly know where Olu is from. And Najea is from – I don't exactly know where they're from. Cause I'm not – I know where they're from, I just can't say it.

---R201, multigenerational Irish girl, third class

Therefore, it was decided to approach measuring inter-ethnic contact by asking children how often they engaged in certain activities with children 'born in Ireland' and children 'born outside of Ireland'. While this approach is not a true measure of 'inter-ethnic contact' in the purest sense, as it is inclusive of children born in Ireland to ethnic minority parents, it is capable of accurately capturing levels of contact with migrant children, and with second generation migrant / multigenerational Irish children.

Two scales comprising of the same nine activities were created, one with the introduction: "I'd like you think about how often you do these activities with someone born in Ireland" and the other with the heading "Now I'd like you to think about how often do you these activities with someone born outside of Ireland". These items were designed to fit a Mokken scaling model, meaning that they increase in 'intensity' from common forms of contact to more intimate forms of contact. Each item was presented with five possible response categories: a) Everyday, b) A few times a week, c) A few times a month, d) About once a month, and e) Almost never. The activities included:

- Talk together in school?
- Play together in school?
- Play together on the yard?
- Play sports together?
- Talk together outside of school?
- Play together outside of school?
- Talk on the phone or text?
- Invite over to your house?
- Go play over at their house?

Overall, there were no serious interpretability issues with the school-based contact items. They were straightforward and most of the children cognitively processed them in the way that that researcher expected.

Interviewer: How often do you do talk with someone born outside of Ireland in school? And you could just let me know what you're thinking and how you're thinking through the question.

Emma: Well, I'm not sure because if I get paired up, well, kind of get paired up with other people. So uh, a few times a month. I got paired up with Bezit so yeah, probably a few times a month.

Interviewer: OK. And play together in school?

Emma: Yeah, well, I play with my friend Paula so probably that one- a few times a week.

---R201, multigenerational Irish girl, third class

Interviewer: So the next question – playing together outside of school?

Gill: Probably never because I never would see them outside of school.

---R312, multigenerational Irish girl, second class

Despite the attempt to be straightforward in item wording, there were some instances when children would understand the question in a way that had not been intended.

Interviewer: So how often would you talk to someone who was born in Ireland in school?

Kevin: Someone born in Ireland in school? Well mostly lots of people in my class were born in Ireland.

Interviewer: So like every day then? Would you talk to someone every day?

Kevin: (silence)

Interviewer: Is it a confusing question?

Kevin: Well, not really every day because Saturday and Sunday I don't really talk to anybody from class so I'm not sure.

---R104, second generation Nigerian boy, fourth class

Problems of redundancy emerged with one pair of items: play together at school and play together on the yard. These statements were interpreted the same way, as children typically only played on the yard during school time.

Interviewer: And how about play together in school?

Sean: (points)

Interviewer: A few times a week?

Sean: Yeah

Interviewer: And how about play together at yard?

Sean: (points)

Interviewer: A few times a week?

Sean: Yeah

Interviewer: And is that question the same as the one I asked before – play together at school and play together on the yard?

Sean: Yeah because when we play together at school, we're usually on the yard.

---R210, multigenerational Irish boy, third class

Interviewer: Is playing together in school and playing together on the yard the same thing, do you think? Or are they different?

Fatima: Same thing.

---R306, first generation Libyan girl, second class

The item 'talk on the phone or text' presented content problems, as very few children in this age group reported talking on the phone or texting with their friends or peers.

Interviewer: And talk on the phone or text?

Emma: Never. I don't really know.

---R201, multigenerational Irish, third class

I never do that. I don't even have a phone.

---R209, multigenerational Irish boy, third class

Interviewer: And what about talk on the phone or text?

Lana: I don't really have a phone but I'm getting one for my birthday.

---R108, second-generation Nigerian girl, fourth class

The question related to playing sports was also not applicable for many children. Sometimes this was based on gendered free-time activities, while others only played sport at school on the yard, which is covered in the 'play together on the yard' item.

Interviewer: And play sports?

Juliana: Well, I don't really do it. Like, girls don't play sports. It's mostly boys.

---R109, second-generation Brazilian girl, fourth class

We play football on the yard. So a few times a week, I guess.

---R202, multigenerational Irish boy, third class

Questions related to out of school contact were equally interpretable in terms of wording and content for the majority of children.

Interviewer: And invite over to your house?

Emma: Sometimes for play dates. So maybe about once a month.

Interviewer: OK. And do you ever get invited to someone else's house?

Emma: Yeah, I do occasionally. But not every time. So probably once a month as well.

---R201, multigenerational Irish girl, third class

Interviewer: Do you ever invite anyone to play at your house?

Eoin: Well, no, not really because when the time when – like we have – when we get home with my mom and dad, it's like 8 o'clock.

---R304, multigenerational Irish boy, second class

Interviewer: And how often do you talk with friends from school outside of school?

Yasmeen: Um, well I might see them when I go shopping. I might see them out in the shops with my mum. Like I saw my friend at Tesco when we were buying stuff.

---R315, first generation Pakistani girl, second class

Overall, the items related to contact with Irish born children and contact with children born outside of Ireland were proven contextually interpretable and age-appropriate through cognitive interviews. While the headings 'born in Ireland' and 'born outside of Ireland' do allow for some subjective interpretation on the part of participants, it was found to be the most appropriate and child-friendly way of quantitative measuring inter-ethnic contact with this age group. Two items were found to be redundant and one item, in particular, was inapplicable

with this age group. Therefore, three omissions were made, resulting in six items measuring contact with children born in Ireland and six items measuring contact with children born outside of Ireland for inclusion on the pilot survey. The statements for these items are presented in Table 10.

Table 10: Revision of the 'contact' items based on cognitive interview data

Pre-Test Item	Problematic Issues	Solution	Pilot Item (if applicable)
Talk together in school?	None	N/A	Talk together in school?
Play together in school?	None	N/A	Play together in school?
Play together on the yard?	Redundant with item 2	Omission	N/A
Play sport together?	Content Redundant	Omission	N/A
Talk outside of school?	None	N/A	Talk outside of school?
Play together outside of school?	None	N/A	Play together outside of school?
Talk on the phone or text?	Content	Omission	N/A
Invite over to your house?	None	N/A	Invite over to your house?
Play over at their house?	None	N/A	Play over at their house?

To gain a better picture of children's understandings of their peers' ethnic and national backgrounds, four additional questions were added to the contact section. These were all presented in a simple 'yes / no' response format:

- Do you know where your best friends were born?
- Do you know where your best friends' parents were born?
- Do you know where your classmates were born?
- Do you know where your classmates' parents were born?

These questions don't measure inter-ethnic contact, but they can provide valuable information on children's level of ethnic awareness with regards to their peers. They were especially useful in the context of the pilot, as the contact measure relied upon the 'born in Ireland' / 'born outside of Ireland' categories as an indicator of inter-ethnic interaction.

SECTION D: ETHNIC BULLYING

Section D included several questions on ethnic harassment in school. It aimed to assess how often a child picked on others, how often a child him/herself was picked on, and how often a child witnessed others getting picked on at school. Each one of these three constructs was measured through two sets of questions: the first set of questions related to the specific type of aggressive behaviour such as calling someone bad names or pushing, hitting, or tripping someone; the second set of questions aimed to measure whether there was an ethnic motivation behind the aggressive behaviour. The section included a few additional items on where the behaviour typically occurs, and how children respond in these situations. It was decided to avoid the term 'bully' in the wording of the items for two reasons. First, it has been found that children and adults often conceptualize 'bullying' in different ways. Second, it has been suggested that the word 'bully' has negative and emotional connotations that may prime children to not accurately report behaviours (Espelage & Holt, 2001) and providing descriptions of behaviours or child-friendly terms is better for eliciting honest responses (Houbre, Tarquinio, Thuillier, & Hergott, 2006; Kert et al., 2010). Therefore, the phrase "picked on" were used for the pre-test items. The items included in this section are presented below. For all of the conditional bullying questions, the response categories were: a) Many times, b) A few times, c) Never.

- In the past month, have you picked on other kids at school? This could be by yourself or part of a group. (*if child answers no, the remaining conditional questions are skipped*). How often did you:
 - Push, hit, or trip someone?
 - Left someone out of the group?
 - Called you someone bad names or teased them?
 - Break or steal something that belonged to someone?
 - Spread bad rumors or told lies about someone?
 - Said mean things to someone?

- In the past month, how often did you pick on someone or give out to someone because of:
 - Where they were born?
 - Their religion?
 - The colour of their skin?
 - The clothes that they wear?
 - Their accent?
 - The neighborhood they live in?

- In the past month, have you been picked on by other kids at school? (*if child answers no, the remaining conditional questions are skipped*) How often did other kids:
 - Push you, hit you, or tripped you
 - Leave you out of the group
 - Call you bad names or tease you
 - Broke or stole something that belonged to you
 - Spread bad rumors or told lies about you
 - Say mean things to you

- How often do you think you've been picked on because of the following reasons?
 - Where you or your parents were born?
 - Your religion?

- The colour of your skin?
- The clothes that you wear?
- Your accent?
- The neighborhood you live in?

- Last time you got picked on, what did you do? _____
- In the past month, have you seen other kids getting picked on at school? (*if child answers no, the remaining conditional questions are skipped*) How often did you see kids:
 - Pushed, kicked, or tripped?
 - Left out of a group on purpose?
 - Called bad names or teased?
 - Something that belonged to them broken or stolen?
 - Bad rumors or lies spread about them?
 - Mean things said to them?
- How often did you see or hear about other kids get picked on because of:
 - Where they were born?
 - Their religion?
 - The colour of their skin?
 - The clothes that they wear?
 - Their accent?
 - The neighborhood they live in?
- Last time you this happened, what did you do? _____
- Where do kids get picked on in school? _____

Like many other sections in the pre-test, the bullying questions aimed to be comprehensive in their coverage. They intended to capture both types of aggressive behavior as well as potential ethnic targets for aggressive. The three main questions in this subsection were nearly identical in their arrangement and their wording. This was helpful in the administration of the interview (as children grew familiar with the format) and in the analyses of the data (as problems with wording on one question were likely to be applicable to the parallel item in the other questions).

The first item asked about picking on others. Very few children responded affirmatively to this question and therefore, the conditional items on this question were skipped for the vast majority of participants. This pattern was not unexpected, as aggressively picking on others is not a common occurrence and those who do are unlikely to openly discuss it due to desirability bias, a fear of getting 'in trouble', or because they do not qualify their behavior as 'bullying' (Monks & Smith, 2006; Rigby & Johnson, 2006). The low level of affirmative responses did not appear to be due to problematic wording or interpretability, as most children seemed to understand the item in the way intended by the researcher.

Interviewer: Over the past month, would you say you've picked on anyone at school? It could be by yourself or part of a group.

Laura: Um, no. We don't pick on anyone. Sometimes they annoy us and we tell on them. But like, we don't pick on them.

---R203, multigenerational Irish girl, third class

Interviewer: Over the past month would you say that you've picked on anyone in class?

Alex: Yes

Interviewer: Yes? And how did you pick on them?

Alex: Say mean things. And start a fight.

Interviewer: Would you say you'd do that many times or a few times-

Alex: Many times.

Interviewer: You'd call someone a mean name many times?

Alex: Yeah because they really annoy me and it just makes me angry and I start doing it because I'm actually the popular-est girl in my class.

---R105, second-generation Nigerian girl, fourth class

Alex was one of the few children who spoke candidly about picking on other children in her class, justifying her actions with her popularity. Her behavior was echoed by her classmates, who described her concurrently as 'mean' and 'popular'. After admitting to picking on her classmates daily, she responded negatively to all of the conditional ethnic bullying questions. She was then asked for additional information on her motivation for picking on her classmates.

Interviewer: So why would you pick on people usually?

Alex: Cause... (pause)

Interviewer: I know it's a hard question.

Alex: (pause) because... of their face.

---R105, second-generation Nigerian girl, fourth class

This suggests that Alex's bullying behavior is not ethnically driven. However, it also could be the case that some 'bullies' view physical appearance, or 'looks' as a justifiable target of aggressive behavior, while recognizing ethnic harassment as taboo or wrong. Physical appearance and

'race' are intrinsically intertwined. Thus, one must not rule out the possibility that harassment on the basis of 'looks' could have ethnic relevance.

The phrase 'picking on' was clearly interpreted by nearly all children in all three class levels. It was used to classify many forms of behavior typically associated with the term 'bullying' including exclusion, verbal teasing, and physical aggression.

Interviewer: And why do you think she was getting picked on?

Juliana: I'm not too sure about that. She was just new. No one wanted to play with her.

---R109, second-generation Brazilian girl, fourth class

Interviewer: Ok. Do you ever see other kids at school getting picked on?

Najea: Sometimes Ashley gets picked on. Like people just make her sad and then I try to make her happy again.

Interviewer: Oh ok. And why do they try to make her sad?

Najea: I don't know. They just say 'we don't want Ashley to play' and then she gets sad. People just don't want to play with her a lot.

---R207, first generation Nigerian girl, third class

Brian: I get picked on, actually.

Interviewer: You do? Why do you think you get picked on?

Brian: It's my hair.

Interviewer: Your hair?

Brian: Just because it's long. They're always slagging me off and calling me a girl.

---R209, multigenerational Irish boy, third class

The advantages of using a widely interpretable, child-friendly phrase like 'picking on' become more apparent when contrasted with children's conceptions of the word 'bullying', a term commonly used in self-report surveys assessing similar behaviors with children of the same age.

Interviewer: Have you ever heard of bullying?

Kyle: Yeah

Interviewer: Yeah? And how would you describe that?

Kyle: Someone picking on someone that's smaller.

---R107, second generation Nigerian boy, fourth class

Interviewer: Do you mind telling me what bullying is?

Ciara: It's a thing where you get bullied when you're young but then when you're older, you don't get bullied a lot.

---R301, multigenerational Irish girl, second class

Interviewer: Have you ever heard of bullying?

Sean: Yeah.

Interviewer: And can you tell me what that is?

Sean: Well I don't know really know what bullying is cause I don't really know what it is. I just heard the word before. But I can tell you one thing – bullying is not nice and bullying is bad to do.

---R210, multigenerational Irish boy, third class

Children seemed to grasp the broad, inclusive expression 'getting picked on' and would relay stories of exclusion or ethnic name calling when asked for examples. However, there were interpretability issues when asked about specific types of bullying behaviour (i.e. getting pushed or tripped, getting called a mean name). When asked about specific behaviours, many children described one-off incidents, conflicts with their siblings, or playground scuffles that did not fit into the general characterization of bullying.

Interviewer: And how often do you see kids get pushed or hit or tripped?

John: Well, sometimes I see them getting tripped but they don't mean it so they don't do it on purpose.

---R205, multigenerational Irish boy, third class

Interviewer: Can you tell me a story about the time you saw someone getting called a mean name?

Gill: Ehm, one time this girl in my class, a girl came up to her and she said "that hat is disgusting" and she said "my nana made it" and then she said "your nana's a terrible knitter".

---R312, multigenerational Irish girl, second class

Interviewer: Have you ever called someone a mean name or teased them?

Sean: There was one time down at my house and my friend Alice, she was helping me with the wood and she dropped some wood on my leg by accident and I said "Alice, what was that for, you meanie!" (laughs)

---R210, multigenerational Irish boy, third class

Interviewer: Ok. And do you ever push or hit or trip anybody on purpose?

Lana: Well, (pause) mmm... not really hit anybody, no. Just like me and my brothers. I only have brothers, I have no sisters. So they like fighting. Sometimes I join in with them (laughs).

---R108, second-generation Nigerian girl, fourth class

Similar problems emerged when trying to assess exclusion through the specific bullying item: 'left out on purpose'. Children were typically capable of describing children who played alone, but were confused by the phrase of 'getting left out on purpose'.

Interviewer: And do you ever leave people out on purpose?

Alex: I don't really know.

---R105, second generation Nigerian girl, fourth class

Interviewer: And does anyone gets left out on purpose?

John: Um, I'm not really sure.

---R205, multigenerational Irish boy, third class

In addition to having concerns with interpretability, the specific bullying behavior items also displayed problems with applicability and content. The aim of the project was to design a measure of inter-ethnic relations, but the specific bullying items on their own did not address ethnic bullying explicitly. Furthermore, they were similar in structure and style to several items on the Olweus Bully Victim Questionnaire, a widely validated and established measure of bullying behavior. Thus, the items were redundant in addition to being inapplicable in content and difficult for children to interpret.

Therefore, it was decided to revise the bullying section to include only items specifically related to picking on others because of ethnicity, getting picked on because of ethnicity, or seeing someone get picked on because of ethnicity. The items on specific types of bullying behavior were omitted, in favor of the more broad and child-friendly term 'picking on'. Table 11 presents the original items, the problematic issues raised in the cognitive interviews, the resolution, and the pilot item when applicable. The pilot survey contained three sections on ethnic bullying:

picking on others, getting pick on, and seeing others getting picked on. Each topic included possible ethnic targets to assess the presence of ethnic harassment in schools.

Table 11: Revision of the 'bullying' items based on cognitive interview data

Pre-Test Item	Problematic Issues	Solution	Pilot Item (if applicable)
In the past month, have you ever: -pushed, hit, tripped, someone -left someone out on purpose -called someone bad names -broken or stole something -spread bad rumours -said mean things to someone	Interpretability Content Redundant	Omission	N/A
In the past month, how often did you pick on someone or give out to someone because of: -where they were born -accent -religion -colour of their skin -clothes they wear -neighbourhood they live in	Applicability: -clothes they wear ²⁸ -neighbourhood ²⁹ Wording ³⁰	Revision	How often do you pick on someone, tease someone, or slag someone because of: -where they were born -their accent -their religion -the colour of their skin -how they look
In the past month, have you: -been pushed, hit, tripped -left out on purpose -called bad names -broken or stole something -bad rumours spread about you -someone said mean things to you	Interpretability Content Redundant	Omission	N/A
In the past month, how often did someone pick on you or give out to you because of: -where you were born -your accent -your religion -colour of your skin -clothes you wear -neighbourhood you live in	Applicability: -clothes you wear -neighbourhood Wording	Revision	How often do you get picked on, teased, or slagged because of: -where you were born -your accent -your religion -the colour of your skin -how you look
Last time you got picked on, what did you do?	Applicability Redundancy Administration	Omission	N/A
In the past month, have you seen other kids getting: -pushed, hit, tripped -left out on purpose -called bad names -broken or stole something	Interpretability Content Redundant	Omission	N/A

²⁸ Most Irish primary schools require children to wear uniforms. Therefore, this question was largely inapplicable.

²⁹ Many children didn't know where others lived.

³⁰ To cover a range of terms and phrases that children themselves used, the term 'slagged' was included in the description of the item. 'Slagging' is a term used in Ireland which refers to a specific type of teasing which is typically playful in nature. While it often harmless in intention, some children, particularly migrant children who are not used to Irish customs, may find the behaviour hurtful. Also, children may use the term as a way of euphemizing their behaviour.

-had bad rumours spread -mean things said to them			
In the past month, how often did see someone get picked on because of: -where they were born -their accent -their religion -colour of their skin -clothes they wear -neighbourhood they live in	Applicability: -clothes you wear -neighbourhood Wording	Revision	How often do you see someone getting picked on, teased, or slagged because of: -where they were born -their accent -their religion -the colour of their skin -how they look
Where do kids get picked on in school?	Administration, content: Item not relevant to final measure	Omission	N/A
When do kids get picked on in school?	Administration, content: Item not relevant to final measure	Omission	N/A

SECTION E: PERCEPTIONS OF RESIDENTIAL AREA

This subsection aimed to measure children’s perceptions of, and behaviour in, their residential area including their enjoyment of their residential area, their level of peer contact in their residential area, and the ethnic composition of their residential area. The follow items and response categories were included in the pre-test measure:

- Do you feel safe in your neighbourhood? (*most of the time, sometimes, never*)
- Do you like your neighbourhood? (*most of the time, sometimes, never*)
- Do you play with other kids in your neighbourhood? (*most of the time, sometimes, never*)
- Do you feel like you belong in your neighbourhood? (*most of the time, sometimes, never*)
- Do you play outside in your neighbourhood? (*most of the time, sometimes, never*)
- Do you have friends who live in your neighborhood? _____
- How would you describe the friends that you have in your neighborhood? (PROMPT CARD – see below)
- I’d like you think about the people in your neighbourhood. How would you describe the people in your neighbourhood? (PROMPT CARD – see below)

The two final questions aimed to assess inter-ethnic contact and neighbourhood ethnic composition. Children were presented with a visual prompt card with five possible responses.³¹

The response categories were:

- All born in Ireland
- Most born in Ireland
- Half born in Ireland, half born outside of Ireland

³¹ Prompt cards are included in Appendix B.

- Most born outside of Ireland
- All born outside of Ireland

The first problematic issue with these items raised by the cognitive interviews was the use of the word 'neighbourhood' to describe the child's residential area. While commonly used in the United States, the term is not employed often in the Irish context. This was evidenced in children's responses to the first item:

Interviewer: Do you feel safe in your neighbourhood?

Eoin: Um.... Where?

---R304, multigenerational Irish boy, second class

Is that like my estate? You mean my estate?

---R102, second generation Nigerian boy, fourth class

It was decided to remove the term 'neighbourhood' from all items and replace it with 'the area where you live'. With regards to interpretability, five questions presented no significant problems: do you feel safe / do you like / do you play with other kids / do you play outside / do you have friends in your neighbourhood. Apart from the wording issue mentioned above, the only problem that emerged from these items was a level of redundancy between the items 'do you play with other kids' and 'do you play outside':

Interviewer: What do you think of this question? Is it like any of the others?

Robert: Kinda. It's kinda like the one before it. Because when I play outside, I play with other kids. And when I play with other kids, I play outside.

---R102, second generation Nigerian boy, fourth class

The main difficulties discovered in the 'neighbourhood' section were related to the ethnic composition questions and the visual prompt cards. When designing these items, the difficulty of measuring ethnic composition with children was ever-present. Terms often employed in surveys with adults (majority / minority; ethnic makeup; first, second generation migrant) are cognitively inappropriate for use with children. Thus, the issue became how to talk about ethnicity and ethnic composition in child-friendly ways. The born in Ireland / born outside of Ireland classification used in the contact section was appropriate in that context, as children demonstrated a relatively sophisticated understanding of their close friends and classmates' national background. While these terms were applicable when talking about people in children's microsystem (friends, family, classmates), they were not as applicable when talking

about people in their exosystem (neighbours, friends parents', etc), as demonstrated earlier in questions about their friends' parents and again below, when attempting to capture neighbourhood ethnic composition:

Interviewer: And so out of all the people who live in your neighborhood – would you say that (reads prompt card):

Brian: I don't really know.

---R209, multigenerational Irish boy, third class

Interviewer: And how would you describe the people who live in your neighborhood?

Juliana: I think all born outside of Ireland because they all speak different languages. But I don't know.

---R109, second generation Brazilian girl, fourth class

Interviewer: And of your friends in your neighborhood, would you say that they were all born in Ireland, most born in Ireland, half born in Ireland half born somewhere else, most born somewhere else, or all born in another country?

Lana: Well, like, its kind of – I don't know if I'll answer this but like, you know Patrick, Sheban, and Evan?

Interviewer: Yeah

Lana: They're – what do you call it again? Indian or something like that. Like an Indian color. But lighter. And their mom is white. And their dad is like, a Pakistan-ish color. But their mom is white. She's Irish. She has an Irish accent. And they, like, they have Irish accents as well. And I think, yeah, I think they were born in Ireland. Because like, they don't really have a Pakistan accent.

---R108, second generation Nigerian girl, fourth class

Interviewer: Most of the people who live in your estate, how would you describe them?

Alex: They're mostly African.

Interviewer: Mostly African, yeah?

Alex: Well, me – no wait, not most African. There's two Africans and then lots of Irish – yeah. That live around my estate. There's lots of Irish.

Interviewer: So lots of people born in Ireland?

Alex: Yeah. Lots of Irish.

---R105, second generation Nigerian, fourth class

Alex's sudden rephrasing of her answer reflects the difficulty of accurately measuring ethnic composition and national background in Ireland's newly multicultural context. Inter-ethnic relations are very difficult to capture reliably with a quantitative measure. When Alex changes her answer from 'mostly African' to 'loads of Irish', I, as a researcher, did not know if she was referring to people who were born in Ireland, or migrants who were now living in Ireland and identifying as Irish. Furthermore, I could not ask her to clarify her statement without drawing her own ethnic identity into question (i.e. 'what do you mean when you say Irish'). Therefore, the applicability and interpretability of items pertaining to ethnic composition were drawn into question.

Given children's uncertainty regarding the national background of people outside of their microsystem, it was decided to remove the items that relied on the prompt card: neighbourhood ethnic composition and the item on ethnic makeup of neighbourhood play partners. Of course, these variables are valuable in a broad study of inter-ethnic relations but children's responses on the cognitive interviews suggested that they were unable to reliably describe the ethnic composition of their exosystem on this type of quantitative measure.

Overall, a total of four items were revised and retained for inclusion in the pre-test measure. The items aim to capture a child's enjoyment of their residential area, as well as the level of peer contact the child has in his/her residential area.

Table 12: Revision of the 'neighborhood' items based on cognitive interview data

Pre-Test Item	Problematic Issues	Solution	Pilot Item (if applicable)
Do you feel safe in your neighbourhood?	Wording	Revision	Do you feel safe in the area where you live?
Do you like where you live?	Wording	Revision	Do you like the area where you live?
Do you play with other kids in your neighbourhood?	Wording	Revision	Do you play with other kids around where you live?
Do you feel like you belong in your neighbourhood?	Wording Interpretability	Omission	N/A
Do you play outside in your neighbourhood?	Redundancy	Omission	N/A
Do you have friends who live in your neighbourhood?	Wording Redundancy	Revision	About how many friends do you have who live in your area? Response options: -I don't have any friends in my area

			-I have one friend in my area -I have 2 or 3 friends in my area -I have 4 or 5 friends in my area -I have more than 5 friends in my area
How would you describe the friends that you have in your neighbourhood?	Wording Content Interpretability	Omission	N/A
How would you describe the people in your neighbourhood?	Wording Content Interpretability	Omission	N/A

SECTION E: ATTITUDES TOWARDS MIGRANTS

This section aimed to quantify the presence of positive or stereotyped attitudes towards migrants held by majority group children. The motivation for including this measure was based on qualitative findings from a recent study in North Dublin, which found that several majority group children voiced typically ‘adult’ opinions about migrant populations (i.e. migrants take jobs from Irish people) (Curry et al., 2011). All of the statements in this section had three possible responses: a) True most of the time, b) True sometimes, or c) Not true. The section opened with a question ‘do you talk about people from different countries at home?’ This introductory question aimed to see if children were familiar with a term other than ‘migrants’, as the word ‘foreigner’ is commonly used in Ireland to describe people from minority backgrounds. If the child responded yes to the question, I asked what word they used at home when talking about people from different countries. I then used the familiar term for the remaining statement questions. The section also included a question about where children were hearing about migrant populations and also why they thought migrants moved to Ireland. The following items were included in this section:

- (Migrants) are different from Irish people
- (Migrants) are smart.
- (Migrants) take money from Irish people.
- (Migrants) are hard working.
- (Migrants) make Ireland a more dangerous place to live.
- (Migrants) take jobs off Irish people.
- (Migrants) make Ireland a better place to live.
- (Migrants) come from poor countries.
- (Migrants) aren’t very nice.
- (Migrants) are friendly.
- Some people get upset when people move to Ireland from other countries. Have you heard about this?

If yes: Where did you hear about this?

- Why do you think people want to move to Ireland from other countries?

Early into the cognitive interviews, I observed that many children grew visibly uncomfortable when answering these questions. Furthermore, I, as a researcher, had practical and ethical concerns about the inclusion of the items when it came time to administer the survey. Capturing stereotyped attitudes and beliefs is a valuable pursuit, particularly in a new-migrant community. However, given the age group of the children, I was concerned that some of these questions were harsh and inappropriate. Despite my concerns, I decided to move ahead with the initial pre-testing, as they had received approval from the ethics committee and sought to measure an important determining variable of inter-ethnic relations in new migrant societies.

Overall, most children displayed positive or neutral attitudes towards migrant populations and had few problems understanding the wording and content of most of the items.

Interviewer: And would you say that people who move to Ireland from different countries are different from Irish people?

Emma: I wouldn't think so, no.

Interviewer: And would you say that people who move to Ireland from other countries are smart?

Emma: Yeah, they're just as smart as we are, so. They are.

---R201, multigenerational Irish girl, third class

Interviewer: I want you to think if you think that people who move to Ireland from different countries are different from Irish people. Would you say that's true most of the time, sometimes, or not true?

Aoife: Not true.

Interviewer: OK and why not?

Aoife: Because they – some people talk the exact same as us and they do the same things as us as well.

---R308, multigenerational Irish girl, second class

While some children were able to interpret and answer the questions, they often had difficulty explaining their responses and beliefs.

Interviewer: Do you think foreigners are different from Irish people most of the time, sometimes or never?

Brian: Sometimes

Interviewer: And why sometimes?

Brian: I don't know. Cause I feel like it's sometimes.

---R209, multigenerational Irish boy, third class

Interviewer: Would you say that people who were born outside of Ireland are different from Irish people?

John: Well, I'm not really sure.

Interviewer: Not really sure. Ok. And what's confusing about the question?

John: Um, I don't really know.

---R205, multigenerational Irish boy, third class

Others were clearly recalling information about migrant children in their class, rather than about migrants in general, as was intended in when designing the questions.

Interviewer: Do you think migrants are hard working?

Sean: Sometimes

Interviewer: Ok and why sometimes?

Sean: Because sometimes they do hard work in class and sometimes they just play.

---R210, multigenerational Irish boy, third class

The discomfort felt by some children resulted in frequent skipping or 'passing' of questions during this section of the interview.

Interviewer: And why do you think people want to move to Ireland from different countries?

Paul: Eh, Pass.

---R202, multigenerational Irish boy, third class

Interviewer: Do you think migrants are friendly?

Kelly: (pause) Skip.

---R302, multigenerational Irish girl, second class

My own ethical concerns over the content of the questions, the evident discomfort of some children during this administration, and the problems with interpretability on several items indicated that these questions were inappropriate for use with the target age group. Ethnic

attitudes and prejudices are particularly nebulous and difficult to assess through quantitative techniques, particularly when conducting research with children. While the pursuit of achieving an appropriate measure of ethnic attitudes is valuable, this study chose to focus on capturing more tangible forms of inter-ethnic relations such as contact levels and behaviour. Thus, the 'attitudes towards migrants' section was omitted from the pilot measure. This decision also benefited the administration procedure for the pilot survey, as it removed the sole section that was aimed at a specific group of respondents. The end result was one version of the quantitative pilot survey that could be administered to all children.

SECTION F: DIFFICULTIES AND DISCRIMINATION

The difficulties and discrimination section intended to assess feelings of perceived discrimination among both majority and minority children. Several items were based on items from the Perceived Racism in Children and Youth (PRaCY) measure, which had been developed and tested among minority children in youth in the United States (Pachter, Szalacha, Bernstein, & García Coll, 2010). The PRaCY has strong validity for use in its developed context, but many of the items were not suitable in new migrant communities or overlooked targets of perceived discrimination distinct to new migrant children (i.e. cultural differences, language acquisition, etc). Therefore, it was decided to develop a new child-centered measure of perceived discrimination that would be applicable in a new migrant community such as Ireland. These included some situations from the PRaCY (i.e. 'have you ever been stared at in public') as well as situations described by children in the Irish based inter-ethnic qualitative literature (i.e. 'have you ever been teased or slagged') (Curry et al., 2011). Particularly, it included questions about specific forms of discrimination aimed at first generation migrants, or those who are not yet embedded in traditional pop culture (i.e. 'have you ever been teased for not knowing a pop star, TV show, movie').

The section included 10 scenarios in which children could have been discriminated against. With each question, they were asked: 'have you ever been treated this way because of your skin colour, your language, your accent, or where you were born?' If they responded yes, they were then asked 'how often has that happened' and presented with a prompt card with the following response categories: a) Once, b) Sometimes, c) Most of the time, d) Always. Below is a list of items on the difficulties and discrimination measure:

- Been stared at when you were out in public?
- Had someone tell you that you didn't belong?
- Had someone call you an insulting name?
- Had someone tease you for not knowing about a TV show, movie, or pop star?

- Felt like someone was uncomfortable being around you?
- Been embarrassed to go out in public?
- Been excluded from activities, games, or clubs?
- Been teased or slagged?
- Had someone make jokes about you that hurt your feelings?
- Been treated badly when you were out at a shop or a restaurant?

The first problematic element of the difficulties and discrimination measure was the initial set of response categories. The inclusion of 'always' was, in hindsight, hyperbolic and improbable. No children responded 'always' to any of the statements. The second problematic element about the structure of the section was that the statement "have you ever been treated this way because of your birth country, language, accent, or skin colour" was included at the top of the measure and not on each individual item. As children went along, I found that if I did not reiterate that I was asking about the situation in that particular context, they would relay incidents that were unrelated to discriminatory behaviour.

Interviewer: How about this question here?

Sofia: Only my brother. He calls me 'meanie' or 'chicken'.

---R309, first generation Ukrainian girl, second class

With regards to the individual items, several showed no discernible difficulty in terms of wording, interpretability, or applicability. These items included 'have you ever been stared at in public?', 'have you ever had someone tease you for not knowing a TV show, pop star, or movie?', or 'have you ever been teased or slagged'.

Interviewer: So what do you think this first question means? (points to 'have you ever been stared at in public?' item)

Najea: Like if you were going shopping somewhere and everyone stared at you because you were black.

---R207, second generation Nigerian girl, third class

Interviewer: What do you think this question means? (points to 'have you ever been stared at in public?' item)

Juliana: Um, I think it means like do they stare at you a lot, like, thinking like 'why is she white?' or "why is she black" and 'she looks ugly'.

---R109, second generation Brazilian girl, fourth class

Interviewer: And how about this one – this question? (points to ‘have you ever been teased for not knowing a pop star, TV show, movie)

Yasmeen: I think it’s when you are new to a country then after, like, they say ‘do you know Justin Bieber?’ then after they say ‘who’s Justin Bieber’ and they say ‘oh my god! You don’t know Justin Bieber? *THE* Justin Bieber?’ I didn’t even know him and then after my friend told me about him.

---R315, first generation Pakistani girl, second class

Interviewer: And what do you think that this question means (points to ‘have you ever been teased for not knowing a pop star, TV show, movie)?

Najea: Yeah, most of the time.

Interviewer: OK. And do you have a story about that?

Najea: Yeah.

Interviewer: Do you mind telling me?

Najea: well, I went to my friend’s house and there were loads of people there because we were going to practice and then I said “who’s that?” and they said “don’t you know? That’s One Direction!” and I said “who’s One Direction?” and they all started laughing and telling everyone that Najea doesn’t know One Direction.

---R207, first generation Nigerian girl, third class

In line with CI data from the bullying section, most children understood the terms ‘teasing’ and ‘slagging’ with no difficulty.

Interviewer: And how about this one? (points to teasing / slagging item)

Malcolm: Like have you ever been teased or slagged about your skin color or accent because of – or country – because like your accent and stuff are different.

---R102, second Nigerian boy, fourth class

Interviewer: And has anyone ever teased you or slagged you because of the colour of your skin or because of where your family is from?

Lana: No, like, no. In this school, there’s loads of black people.

---R108, second generation Nigerian girl, fourth class

I think it means, like, has anyone made jokes or like made fun of you and slagged you like that and after, did it hurt your feelings.

---R209, multigenerational Irish boy, third class

As with earlier question on the topic of belonging, this item presented difficulty in terms of interpretation and also wording, as some children didn't understand what was meant by the word.

Interviewer: And have you ever had someone tell you that you didn't belong?

Niki: Like belong what?

Interviewer: I know that might be a weird question. Like, someone saying "oh you shouldn't be here".

Niki: Well, it's just in singing club. I wasn't supposed to be there because I didn't pay. Like by accident. I didn't pay by accident.

---R205, second generation Nigerian girl, second class

The question 'have you ever been treated badly in a shop or restaurant' was interpretable, but elicited very low affirmative responses. The specificity of the location could have limited the responses on this item, particularly for this age group of children who are typically in shops and restaurants with parents or family members.

Interviewer: And how about this question?

Juliana: I think I haven't been. It means, like, have you treated badly if you were out in a restaurant like maybe they said like "oh she's the only white girl" or "haha you're not allowed in this restaurant, get out". Well I never ever have been that in my life.

---R109, second generation Brazilian girl, fourth class

My family, we don't go to restaurants.

---R304, multigenerational Irish boy, second class

Wording difficulties emerged on the item relating to 'exclusion', as this term may have been too cognitively advanced for many of the participants.

Interviewer: And have you ever been excluded from activities or clubs or games?

Niki: Huh?

---R205, second generation Nigerian girl, third class

What's that mean? (pointing to excluded)

---R210, multigenerational Irish boy, third class

Based on feedback from the cognitive interview, the difficulties and discrimination scale was shortened and revised prior to the pilot. The format for all items was changed, including a statement followed by the following response categories: a) Never, b) A few times, c) Many times. These categories are more realistic than the initial list included in the pre-test. Furthermore, by including the context (because of birth country, skin colour, religion, or accent) on each statement, the risk of affirmative responses based on recalling non-discriminatory events was lowered. The final list of items included on the perceived discrimination measure in the pilot is presented in Table 13.

Table 13: Revision of the 'difficulties and discrimination' items based on cognitive interview data

Pre-Test Item	Problematic Issues	Solution	Pilot Item (if applicable)
Been stared at in public?	None	N/A	Been stared at in public because of your birth country, skin colour, or accent?
Had someone tell you that you didn't belong?	Wording Content	Omission	N/A
Had someone call you an insulting name?	Redundant	Omission	N/A
Had someone tease you for not knowing a TV show, movie, or pop star?	None	N/A	Had someone tease you for not knowing a TV show, movie, or pop star?
Felt like someone was uncomfortable around you?	Wording Interpretability Content Ethical Issues Redundancy	Omission	N/A
Been embarrassed to go out in public?	Wording	Revision	Have you ever felt embarrassed because of the colour of your skin, birth country, accent, religion?
Been excluded from activities, games, or clubs?	Wording, interpretability	Omission	N/A
Been teased or slagged?	None	N/A	Have you ever been teased or slagged because of your birth country, religion, accent, colour of your skin?
Had someone make jokes and hurt your feelings?	Redundancy	Omission	N/A
Been treated badly when you were out in a shop or restaurant?	Content	Revision	Have you ever been treated badly because of your birth country, accent, religion, skin colour?

SECTION G: FREE TIME

The free time section aimed to lighten the mood of the interview following the discrimination section by asking children a few brief questions about their out of school time activities, as well as the ethnic makeup of those activities. The questions consisted of:

- Do you go to any after-school clubs, sports, or programs?
- How would you describe the other kids at the program? (*all born in Ireland, most born in Ireland, half born in Ireland half born outside of Ireland, most born outside of Ireland, all born outside of Ireland*)
- What are some of your favorite things to do in your free time?
- Who do you like to do these things with?

The items in this section were not uniformly applicable to all children. Many children, particularly minority children, did not engage in structured out-of-school time activities such as sports clubs. While it was found that many attended church groups or religious classes, few mentioned these activities in this section. This could be due to the fact that many religious organizations convene over the weekend, rather than 'after school', as indicated in the question.

As with the questions in the neighbourhood section, the item relying on the ethnic composition prompt card presented difficulty for some children. Others, however, seemed to know the national background of children in their extracurricular activities. This was most often the case for multigenerational Irish children who attended activities with other multigenerational Irish children.

Interviewer: And out of the kids that go to the afterschool program with you, would you say that they're all born in Ireland, most born in Ireland, half born in Ireland half born outside, most born outside, or all born outside?

Sean: All born in Ireland.

---R210, multigenerational Irish boy, third class

Interviewer: Are there any kids at GAA who weren't born in Ireland?

Eoin: There was one but he got moved up to the big big group.

---R304, multigenerational Irish boy, second class

The open-ended questions on free time were included to give children an opportunity to discuss activities that were enjoyable to them. While they produced some valuable qualitative data, they were not relevant for inclusion in the pilot measure due to content and administration issues.

In the end, it was decided that out-of-school time inter-ethnic contact would be captured most effectively through the contact measure. Thus, the 'free time' items were not retained in the pilot survey.

SECTION I: YOU AND YOUR FAMILY

The final subsection of the pre-test collected important demographic information about participants and their families. It included the following questions:

- How old are you? _____
- Do you have brothers and sisters? *(yes, no)*
- If yes, how many? _____
- Is your family religious? *(yes, no)*
- IF YES: What religion? _____
- Were you born in Ireland? *(yes, no)*

IF NO:

- Where were you born? _____
- When did you move to Ireland? _____
- Were both of your parents born in Ireland? *(yes, no)*

IF NO:

- Where were your parents born? _____
- What is your favorite thing to do with your family? _____

The only major problem with these items uncovered through the cognitive interviews was the use of the word 'religious', which many children did not understand.

Interviewer: Is your family religious?

Najea: What does that mean?

---R207, first generation Nigerian girl, third class

Interviewer: Is your family religious?

Juliana: Uh, does that mean like from the same country?

Interviewer: No, it means like do you ever go to church?

Juliana: We all go to church.

---R109, second-generation Brazilian girl, fourth class

Therefore, it was decided to revise the question to include predefined response categories to measure religious affiliation. Also, the question 'where were your parents born' was split into two separate questions – one for the child's mother and one for the child's father – to gain a

more well-rounded picture of a child's ethnic background. The final questions for the 'about you and your family' subsection are presented in Table 14.

Table 14: Revision of the demographic items based on cognitive interview data

Pre-Test Item	Problematic Issues	Solution	Pilot Item (if applicable)
How old are you?	None	N/A	How old are you?
Do you have any brothers and sisters? If yes, how many?	None	N/A	Do you have any brothers and sisters? If yes, how many?
Is your family religious?	Wording	Revision: defined response categories, additional question on frequency of service attendance.	What is your religion? How often does your family go to church/mosque/synagogue?
Were you born in Ireland? If no, where were you born? How old were you when you moved to Ireland?	None	N/A	Were you born in Ireland? If no, where were you born? How old were you when you moved to Ireland?
Were both of your parents born in Ireland? If no, where were they born?	Content	Revision: split question	Was your mother born in Ireland? If no, where was she born? Was your father born in Ireland? If no, where was he born?
What is your favourite thing to do with your family?	Administration	Revision	If a genie came out of a bottle and gave you three wishes, what would you wish for?

The final question 'if a genie came out of a bottle and gave you three wishes, what you would wish for' was included as a 'wrap up' question and as an entertaining item that allowed children to use their imagination. I also included one question 'is there anything else you would like to share about yourself' to give children the opportunity to include any additional information that they thought was relevant.

4.6 - SUMMARY

The final pilot survey included 52 items arranged in six subsections. A total of 17 items from the pre-test were retained without revision, nine new items were created for the pilot, and 26 items were revised based on feedback from the cognitive interviews. Table 15 presents the pilot items arranged by subsection.

Table 15: Overview of the pilot measure arranged by section and items

Section A: School	4 questions about the child's year in school, length of time in the current school, and enjoyment of school.
Section B: Ethnic Bullying	15 questions on ethnic bullying measuring three underlying constructs: picking on others on the basis of ethnicity, getting picked on the basis of ethnicity, and observing others getting picked on because of ethnicity.
Section C: Where you live	4 questions about children's level of satisfaction with their residential area and peer interaction in their residential area.
Section D: Being treated differently	5 questions assessing a child's level of perceived discrimination on the basis of their birth country, religion, accent, or skin colour.
Section E: Where people are from	6 questions on children's birth country, their parents' birth countries, their best friends' birth countries, and their understanding of their friends and classmates national backgrounds.
Section F: Who you spend time with	6 questions on contact with children born in Ireland and 6 questions on contact with children born outside of Ireland.
Section G: About you and your family	6 questions on children's age, family structure, religion, and two open ended questions.

The cognitive interview pre-test stage was instrumental in the construction of a broad and cohesive, age-appropriate, child-centered pilot measure of inter-ethnic relations. Many problematic issues related to wording, interpretability, age-appropriateness, redundancy, content, and ethics were identified through this method. While the researcher had considered some of these issues prior to the entering the field, the vast majority of them became evident only after speaking directly with children. This elucidates the importance of involving and consulting children when designing a child-centered quantitative measure, as well as their ability to contribute to the research process in a constructive and meaningful manner.

After constructing the pilot measure, it was administered in pen and paper format to 208 children in five primary schools. The aim of the pilot phase was to further evaluate the items through psychometric testing including confirmatory factor analyses, non-parametric item response theory scaling analyses, and criterion validation testing. The remaining two finding chapters describe the psychometric testing of new measures assessing two broad constructs of inter-ethnic relations: inter-ethnic contact and problematic inter-ethnic relations. Chapter five presents the scaling analyses and validation testing of two measures of contact. Chapter six presents the scaling analyses and validation testing for three new measures of problematic inter-ethnic relations.

CHAPTER 5: FINDINGS: BUILDING MEASURES OF CONTACT

5.1 - INTRODUCTION

The previous chapter discussed the value of using contact as an indicator of inter-ethnic relations among children. This chapter describes the item selection and scaling procedure for two new measures of contact: contact with children born in Ireland and contact with migrant children. Two new measures are constructed from twelve items, with six items predicting each scale. It was decided that given the complexity and subjectivity of ethnic identity in modern day Ireland, the wording of the measure would focus specifically on contact between migrant children and children born Ireland. All children were asked to complete the twelve items. This allowed for a thorough and comparative analysis of types of contact between generational groups.

First, the results of a Confirmatory Factor Analysis are presented, confirming structural validity. Then, reliability for each measure is individually assessed through Mokken scaling analysis and supplemented with traditional reliability tests. Criterion validation for each measure is built through convergent correlations and known group predictions. The chapter closes with a presentation of qualitative data, further establishing the content and construct validity of the new measures and allowing for the more nuanced elements of inter-ethnic contact to be presented through the children's voices.

Descriptive statistics for the twelve items designed to measure contact between Irish-born and migrant children are included in Table 16. As described in detail in Chapter Two, six types of contact were presented in the measure and children were asked how often they engaged in each type of contact with: a) children born in Ireland, and b) children born outside of Ireland. The items were designed to fit a Mokken scaling model, meaning that they increase in 'intensity' from common forms of contact (ex: talking in school) to more intimate forms of contact (ex: inviting over to your house). At a glance, the frequencies suggest that the items performed as predicted: children reported engaging in 'common' forms of contact more frequently with both Irish-born and migrant children. Approximately 93% of children talk with someone born in Ireland at school at least once a week and 75% talk with a migrant child with the same frequency. As the contact becomes more intimate, children engage in the form of contact less frequently. Compared with the high levels of in-school contact, only 32.2% of children invite an Irish-born child to their house once a week. Just over 25% invite a migrant child to their house with the same frequency.

Table 16 also shows differences in overall contact with Irish-born and migrant children. While it is important to investigate this in further detail, the focus of this chapter is on scaling and measurement design. For now, the concentration will remain on the psychometrics of the measures rather than the implications of the frequencies. As evidence by the frequencies and the item content, the pattern of responses is intuitively plausible.

Table 16: Frequencies of contact items arranged by group

Type of Contact	Response Categories	Frequency (%) With Irish Born	Frequency (%) With Migrant
How often do you talk in school?	<i>Never</i>	4 (2.0)	19 (9.7)
	<i>About once a month</i>	8 (4.1)	15 (7.7)
	<i>A few times a month</i>	2 (1.0)	15 (7.7)
	<i>About once a week</i>	14 (7.1)	37 (18.9)
	<i>Everyday</i>	168 (85.7)	110 (56.1)
How often do you play in school?	<i>Never</i>	7 (3.6)	32 (16.3)
	<i>About once a month</i>	7 (3.6)	13 (6.6)
	<i>A few times a month</i>	11 (5.6)	14 (7.1)
	<i>About once a week</i>	20 (10.2)	38 (19.4)
	<i>Everyday</i>	151 (77.0)	99 (50.5)
How often do you talk to outside of school?	<i>Never</i>	17 (8.7)	42 (21.4)
	<i>About once a month</i>	12 (6.1)	14 (7.1)
	<i>A few times a month</i>	21 (10.7)	34 (17.3)
	<i>About once a week</i>	53 (27.0)	33 (16.8)
	<i>Everyday</i>	93 (47.4)	73 (37.2)
How often do you play together outside of school?	<i>Never</i>	29 (14.8)	60 (30.6)
	<i>About once a month</i>	18 (9.2)	22 (11.2)
	<i>A few times a month</i>	34 (17.3)	32 (16.3)
	<i>About once a week</i>	47 (24.0)	36 (18.4)
	<i>Everyday</i>	68 (34.7)	46 (23.5)
How often do you invite them over to your house?	<i>Never</i>	58 (29.6)	96 (49.0)
	<i>About once a month</i>	41 (20.9)	30 (15.3)
	<i>A few times a month</i>	34 (17.3)	25 (12.8)
	<i>About once a week</i>	38 (19.4)	31 (15.8)
	<i>Everyday</i>	25 (12.8)	14 (7.1)
How often do you go play at their house?	<i>Never</i>	57 (29.1)	89 (45.4)
	<i>About once a month</i>	40 (20.4)	34 (17.3)
	<i>A few times a month</i>	31 (15.8)	23 (11.7)
	<i>About once a week</i>	45 (23.0)	36 (18.4)
	<i>Everyday</i>	23 (11.7)	14 (7.1)

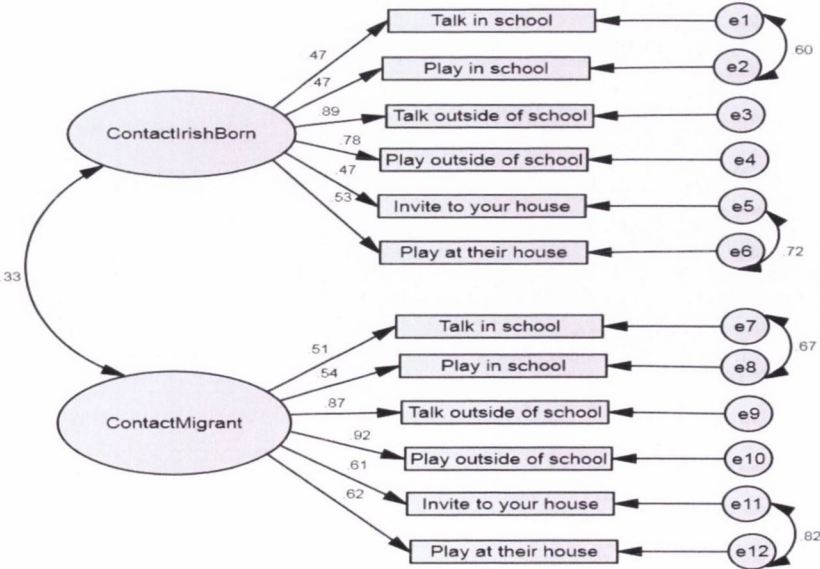
5.2 - VALIDATING THE PREDICTED STRUCTURE: CONFIRMATORY FACTOR ANALYSIS

It was hypothesized that these twelve contact items would capture two distinct forms of contact among children: contact with Irish born children and contact with migrant children. A confirmatory factor analysis (CFA) was conducted to confirm that the items functioned as intended. A two factor model was predicted, with six observed contact variables influencing

each latent variable. The latent variables were allowed to correlate, as it is probable that contact with Irish born children and contact with migrant children are not independent constructs. In addition to the covarying two factor model, a one factor model, a non-covarying two factor model, and a three factor model were also tested to compare the fit of the hypothesized model with alternative models. The one factor model consisted of all 12 items predicting one latent variable: contact. The three factor model included three latent traits: school-time contact, out of school contact with Irish born children, and out of school contact with migrant children. This model was tested because existing research has demonstrated that some children may have high levels of inter-ethnic contact at school but relatively low levels of inter-ethnic contact outside of school (Curry et al., 2011; Davey & Mullin, 1982; Garandeanu, Wilson, & Rodkin, 2010). Therefore, it is plausible that the 12 items could also capture in-school contact and out-of-school contact rather than contact with Irish children and contact with migrant children. For this reason, it was included as a possible alternative model in the CFA.³²

First, the hypothesized two-factor measurement model was estimated using the maximum likelihood method. Modification indices showed that allowing four pairs of residuals to covary would greatly improve model fit. All four pairs featured items that were next to each other in terms of ‘intensity’ (ex: talk to a migrant in school, play with a migrant in school) so residual correlation was theoretically justifiable. Covariance was permitted and the model was re-run. Figure 6 shows a path diagram of the hypothesized two factor model with standardized estimates.

Figure 6: Path diagram of the two factor contact model



³² Path diagrams and standardized loadings for all four tested models are included in Appendix J

Table 17: Factor Loadings for Contact Items

Latent Variable	Observed Variable	Standardized loading
Contact with Children Born in Ireland	<i>Talk in school?</i>	0.47
	<i>Play together in school?</i>	0.47
	<i>Talk outside of school?</i>	0.89
	<i>Play together outside of school?</i>	0.78
	<i>Invite over to your house?</i>	0.47
	<i>Go play at their house?</i>	0.53
Contact with Migrant Children	<i>Talk in school?</i>	0.51
	<i>Play together in school?</i>	0.51
	<i>Talk outside of school?</i>	0.87
	<i>Play together outside of school?</i>	0.92
	<i>Invite over to your house?</i>	0.61
	<i>Go play at their house?</i>	0.62

As shown in Table 17, all twelve items had relatively strong loadings on their respective factors (>0.45) (Comrey & Lee, 1992; Hair & Anderson, 2010). The correlation between the two factors was notable at 0.33. While the χ^2 was statistically significant, the χ^2/df ratio was 3.5, well below the good-fit standard of 5. Additional tests for fit indicated a reasonably good fit with CFI = .94 and GFI = .91. The RMSEA measured 0.08, which is just slightly higher than the good fit threshold of 0.05 but considered acceptable (MacCallum et al., 1996). The NNFI suggested a moderate fit (.90) and the CFI indicated a good fit (.93). Overall, most model fit indices showed a good fit to the data and an adequate description of the underlying structure. Furthermore, the hypothesized two factor model outperformed all three of the alternative models (see Table 18 for a comparison of fit indices). Therefore, it can be argued that the CFA confirmed the *a priori* hypothesis that the twelve contact items best predict two underlying latent factors: contact with Irish born children and contact with migrant children.

Table 18: Goodness of Fit Indices for CFA Models

	χ^2	df	χ^2/df	GFI	RMSEA	CFI	NNFI
<i>Model 1: Hypothesized two factor correlated model</i>	149.35	43	3.47	.91	.08	.93	.90
<i>Model 2: Two factor uncorrelated model</i>	765.43	54	24.46	.53	.26	.54	.26
<i>Model 3: One factor model</i>	407.80	49	8.32	.75	.19	.77	.69
<i>Model 4: Three factor model</i>	821.99	49	16.78	.49	.28	.50	.33

By confirming the presence of two underlying latent factors, the CFA built construct validity by affirming that the twelve items are appropriate indicators of two distinct forms of contact. This

means that the items can be subjected to scaling and reliability analysis, to further assess their appropriateness for inclusion in a new measure. On its own, a confirmatory factor analysis is considered a highly sufficient and sophisticated form of measurement design and validation. Combining it with a non-parametric item response theory scaling analysis facilitates a further examination of item performance, scalability, response patterns. The chapter goes on to discuss the reliability analysis and validation techniques for the two new measures of contact. A sensitive scaling approach and robust validity tests work to build a measure that accurately and efficiently captures relevant, distinct elements of contact between migrant children and children born in Ireland.

5.3 - MEASURING CONTACT WITH CHILDREN BORN IN IRELAND

In the interest of space and readability, 'Contact with Children Born in Ireland' will be abbreviated CCBI while presenting the NIRT analyses.

MOKKEN SCALING ANALYSES: BUILDING A SENSITIVE MEASURE

The Mokken analysis of the CCBI measure began by calculating Loevinger's scalability coefficients for all items (*Hi* coefficients) and for the total scale (*H* coefficients). Table 19 presents the coefficients for all six items, all of which satisfied the unidimensionality assumption with *Hi* ranging from 0.46 to .60. Item scalability and total score coefficients were also extracted. As a scale, the items displayed strong unidimensionality based on *H* coefficients, with a total score of 0.547 (Loevinger, 1948). According to the standard, any *H* score >0.5 indicates a strong scale.

Table 19: Unidimensionality and monotonicity of CCBI items

Contact Item	Mean	Hi	#ac	#vi	#zig	#crit
Talk to in someone born in Ireland in school?	4.70	0.46	9	0	0	0
Play with someone born in Ireland in School?	4.54	0.48	11	0	0	0
Talk to someone born in Ireland outside of school?	3.98	0.58	10	0	0	0
Play with someone born in Ireland outside of school?	3.55	0.56	12	0	0	0
Play over at someone born in Ireland's house?	2.65	0.55	11	1	0	15
Invite someone born in Ireland over to your house?	2.68	0.59	12	0	0	0

The monotonicity assumption was investigated using the observable property manifest monotonicity function (Sijtsma & Molenaar, 2002). This test is used to see if the item step response functions are non-decreasing functions of the latent trait. In other words, it tests to see if items increasing in 'intensity' are also increasing on the latent trait (in this case, Contact with

Children Born in Ireland). Based on sample size, restscore groups were set to a minimum of 55 (Stochl et al., 2012). Monotonicity output for the items are included in Table 19. One item appears to have violated the monotonicity assumption, though the violation as indicated by the z score was not significant. The crit score of 15 further confirms that this violation is not a serious violation of monotonicity and the item is suitable for inclusion in a Mokken scale (Molenaar & Sijtsma, 2000). The monotonicity assumption was satisfied, indicating that all items appear to discriminate well between respondents with low levels of contact (indicated by low restscores) and ones with higher levels contact (indicated by high restscores).

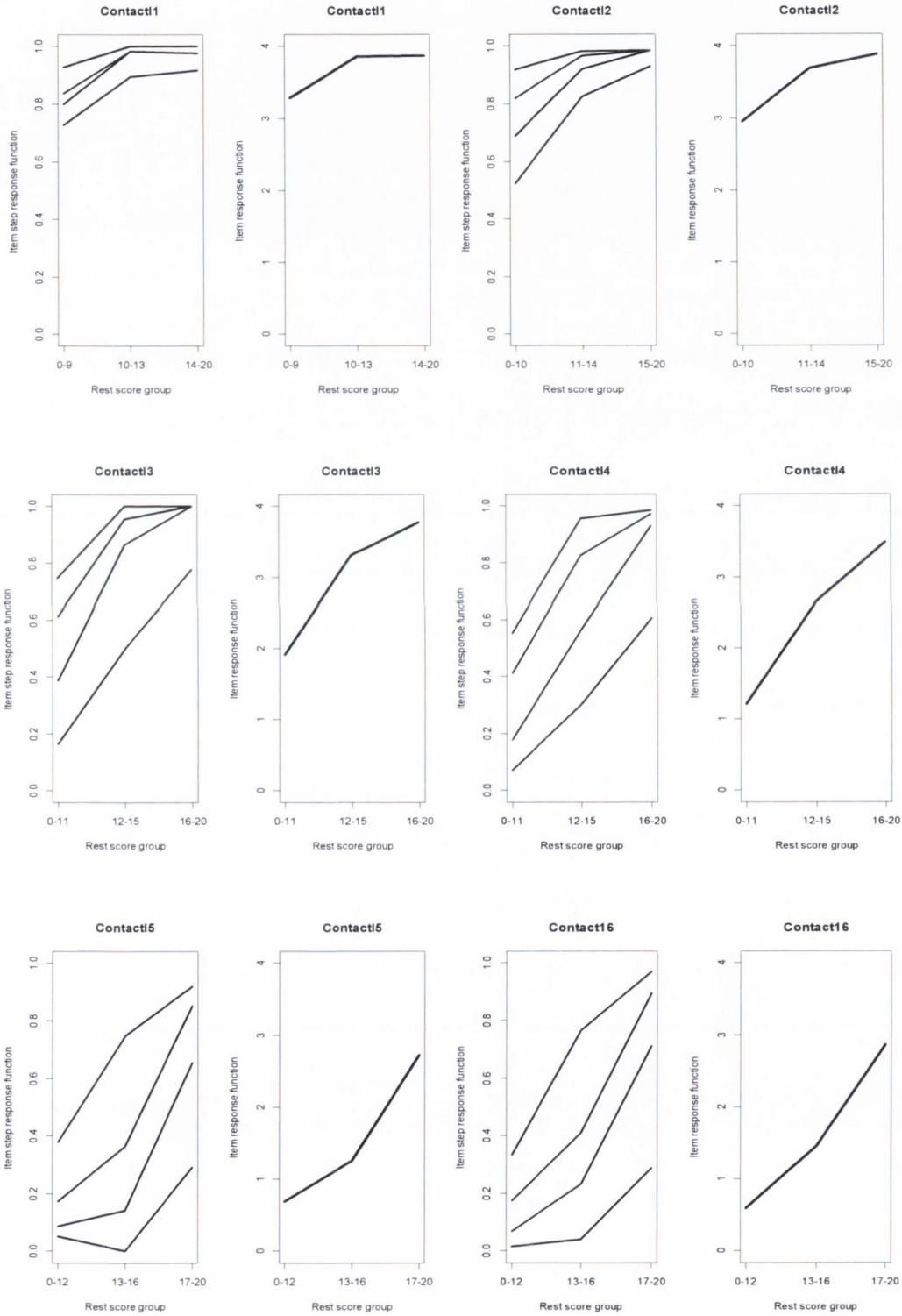
To provide a more detailed demonstration of what monotonicity means, plots for the six CCBI items are presented in Figure 7. For each item, there are two plots. The plots on the left graphically represent the performance of an item's ISRFs. As described in detail in Chapter 2, ISRFs can be thought of as the 'step' between one item response category and the next. For example, the step could be the difference between 'a few times a month' and 'about once a week'. There are five response categories for each item, meaning there are four steps between items. The plots on the right show the IRF of the item itself. The latent trait, represented by restscores, is featured on the x axis.

As the plots show, all IRFs are increasing along with the latent ability. As restscores increase, the probability of a respondent endorsing the specific contact item also increases. Violations of monotonicity would be demonstrated by a decrease or a dip in the IRF. Monotonicity plots are also helpful in demonstrating the 'difficulty' or 'intensity' of an item. For example, take the IRF plot for Contact1 (how often do you talk with someone born in Ireland in school?). This item is considered the 'easiest' by IRT standards, as it is the most likely to be endorsed. It is also the least 'discriminating'. There is a slight difference between respondents with low levels of contact and those with medium levels of contact, as indicated by the slight increase in the line from the Y axis to the middle. However, there is no discriminating power between those with medium levels of contact and those with high levels of contact, as demonstrated by the straight line between medium and high restscore groups. This means that the item cannot differentiate between children who have 'medium' levels of contact with Irish born children and those who have high levels of contact. Both groups would be equally as likely to endorse the item because the type of contact described in the item is so common.

For an example of a highly discriminating item, observe the plots for ContactI6 (how often do you invite someone born in Ireland over to your house?). The IRF is steep and consistently increasing along the latent trait, meaning that the item is able to differentiate levels of contact

based on a respondent's ability. The differences between low, medium, and high levels of contact are distinguishable as shown by the slope.

Figure 7: Monotonicity plots for 'Contact with Children Born in Ireland' items



Following the investigation of monotonicity, invariant item ordering (IIO) was tested using the *Manifest IIO (MIIO)* method. The MIIO method orders the items by descending mean item scores

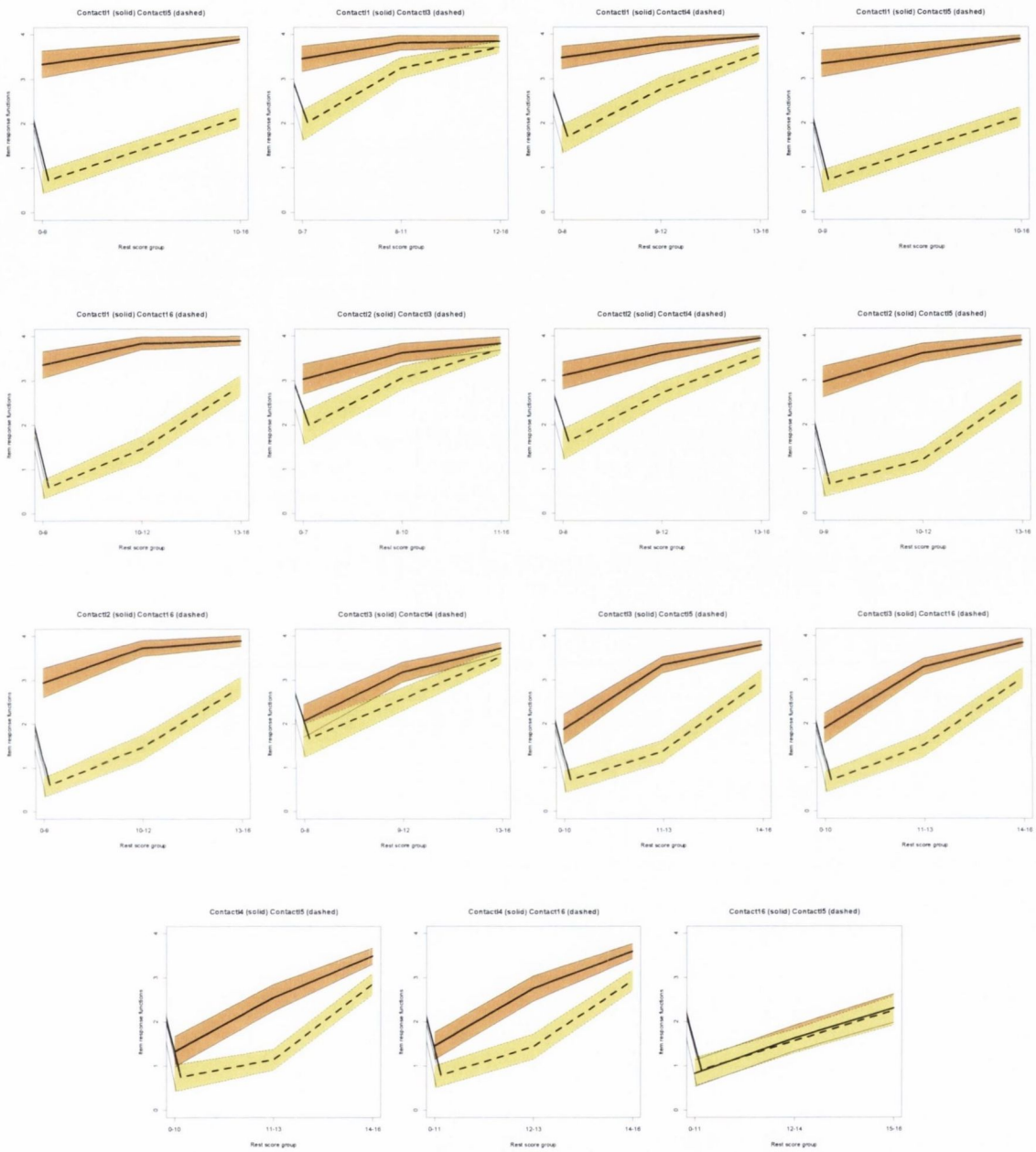
and numbers them accordingly. Next, each item pair was evaluated to see if it violated the equation of MIIO. Very small violations were automatically ignored by the method, while significant violations were noted. An item violates the assumption when items intersect, indicating a non-hierarchical structure in the measure. All items returned t scales of 0, indicating that there were no violations of intersection ($HT = .75$).³³

Plots of item response functions for each pair of items are presented in Figure 8. These plots differ from the monotonicity plots as they show the relationship between two IRFs against the latent trait. They also show the confidence interval of the IRFs in the coloured area surrounding the black and dashed lines. The graphs provide a strong visual representation of the IIO assumption and prove useful in illustrating the non-intersecting data, as well as the hierarchical nature of the items. When observing the relationship between Contact1 (talk with someone born in Ireland in school) and Contact2 (play with someone born in Ireland in school), there is little difference with regards to item difficulty. Both items are able to discriminate slightly between low and medium level contact groups, but fail to discriminate between medium and high level contact groups. The plot of ContactI1 and ContactI6 (invite someone born in Ireland to over to your house) provides a good visual representation of a weak item and a strong item. The IRF for ContactI1 is nearly horizontal, indicating a weak discrimination. The IRF for ContactI6 increases in intensity along the latent trait, demonstrating its ability to differentiate between respondents based on their latent level of contact.

The only apparent violation of IIO occurs between ContactI6 and Contact15 (play at someone born outside of Ireland's house). The nearly identical position and slope of the IRFs suggests that the content of the items and the discrimination power are very similar and one item may be redundant. Based on the small number of items in scale and the fact that violation was not significant according to the MIIO test, it was decided to keep both items in the measure.

³³ Syntax for the IIO investigation is presented in Appendix H.

Figure 8: IIO plots of Contact with Children Born in Ireland items

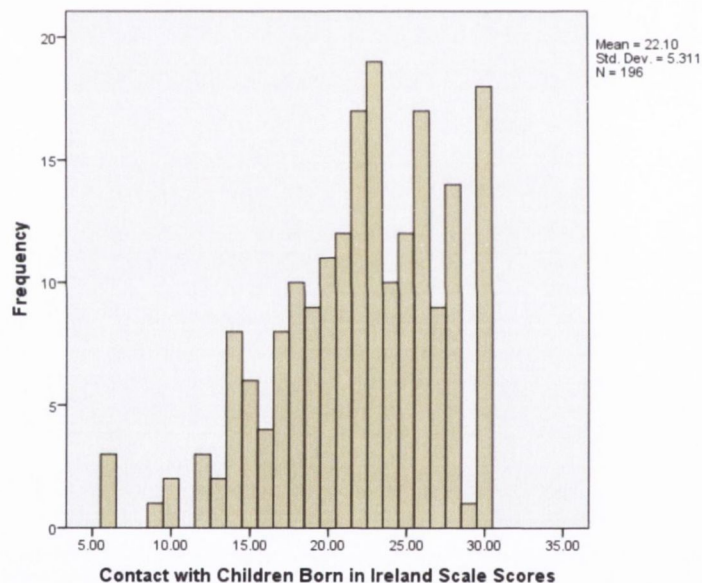


By satisfying all four assumptions, the six 'contact with children born in Ireland' items meet the requirements for the strong Mokken double monotonicity model. As a scale, these items accurately measure contact with children born in Ireland in a way that is unidimensional, nuanced, and sensitive. In addition to the Mokken reliability testing, three reliability coefficients were also calculated for the new measure. All three methods of reliability testing reinforce that the items create a strong scale with Cronbach's Alpha = .80, Guttman's Lambda 2 = .83, and MS method coefficient = .87 (Cronbach, 1951; Guttman, 1945; van der Ark, van der Palm, & Sijtsma, 2011). This further establishes the reliability of the items as a unidimensional

measure and affirms their ability to collectively assess a child's level of contact with children born in Ireland.

The final contact with children born in Ireland scale consists of six items, each with five possible response categories. Scores were generated by summing the responses as follows: 5 = Everyday, 4 = A few times a week, 3 = About once a week, 2 = A few times a month, 1 = Almost never. Thus, final scores could range from 6 (indicating almost no contact with children born in Ireland) to 30 (indicating every day, highly familiar contact with children born in Ireland both in and out of school). The mean score for the variable was 22.10, SD = 5.31. A histogram of the scale's distribution is presented in Figure 9.

Figure 9: Distributions of the Contact with Children Born in Ireland Scale



BUILDING VALIDITY OF THE CONTACT WITH CHILDREN BORN IN IRELAND SCALE

Following the Mokken scaling analysis, the psychometric evaluation of the new measure continued with validity testing. The initial confirmatory factor analysis established that the projected two factor contact model was a good fit, building construct validity for the measure and the two scales of contact. This chapter goes on to build criterion validity of the scale by validating it against known group outcomes and recognized measures of happiness, self-esteem, and mental well-being.

The association between generational status and contact with children born in Ireland

The generational status of children has been shown to play a role in the development of social groups and friendships. For many first generation migrants, strong school-based friendships are formed with other migrant children, regardless of country of origin (Anderson, 2001). In-group friendships among children with similar ethnic backgrounds are often solidified outside of school through religious groups, cultural centres, language schools, or extended family networks (Curry et al., 2011; Devine, 2009; Windzio, 2012). The majority of international research argues that even among children in ethnically diverse schools, “children usually lead ethnically segregated lives even when they are nominally integrated in school settings” (Garandean et al., 2010).

It was hypothesized that contact with children born in Ireland would be higher for multi-generational Irish children than for first or second generation migrants. Analyses of variance (ANOVA) were conducted to examine the mean differences between generations. Convergent with international literature, contact levels were lowest for first generation migrants ($n = 67, M = 21.43, SD = 5.34$), followed closely by second generation migrants ($n = 92, M = 21.52, SD = 5.21$), and then multi-general Irish ($n = 37, M = 24.72, SD = 4.81$). The effect of generational status on contact with children born in Ireland was significant [$F(2, 193) = 5.89, p = 0.003$]. Tukey’s posthoc test revealed a significant difference in contact levels between multi-generational Irish children and both first and second generation migrants (1st: $p = .006$, 2nd: $p = .005$). This confirms the hypothesis that multi-generational Irish children engage in higher / more intimate levels of contact with Irish born children than first or second generation migrants.

The association between length of time in Ireland and contact with children born in Ireland

Upon arriving in a new country, migrant children are often immersed in a migrant social network. As time goes on, many migrant children develop more inter-ethnic or ‘out-group’ friendships as they acquire the native language and learn how to navigate their new social worlds (Bellmore et al., 2011; Rizvi, 2004; Titzmann & Silbereisen, 2009). Pearson’s correlations investigated the relationship between length of time living in Ireland and contact with Irish born children for first generation migrants. As predicted, there was a significant positive correlation between the variables, supporting international findings that contact with Irish born children increased with the amount of time that migrant children had been living in Ireland ($r = .160, n = 67, p = .025$).

The relationship between happiness, self-concept, and contact with children born in Ireland

Meaningful friendships are instrumental in the emotional, social and cognitive development of the child (Erwin, 1993; Newcomb & Bagwell, 1995). Childhood friendships have also been shown to build self-concept and contribute to overall emotional well-being (Bishop & Inderbitzen, 1995; Bolger, Patterson, & Kupersmidt, 1998; Nangle, Erdley, Newman, Mason, & Carpenter, 2003). While contact doesn't necessarily predict friendship, higher scores on the contact with children born in Ireland measure are reflective of more intimate forms of contact often associated with close friendship (i.e. playing together outside of school, visiting each other's homes, etc). Therefore, it was hypothesized that contact with Irish born children would be positively related to happiness and self-esteem levels among all children in the sample. Pearson's correlations confirmed that happiness and self-esteem were positively related to contact with children born in Ireland (h: $r = .28, p < .001$; s.e.: $r = .26, p < .001$), supporting the literature that positive peer relationships and intimate friendship are related to children's well-being.

The relationship between mental health and contact with children born in Ireland

Social acceptance and positive peer relationships are important predictors of children's overall adjustment and mental health (Parker & Asher, 1987; Sawyer et al., 2001). Specifically, intimate friendships are linked to lower levels of social anxiety and depressive symptoms in childhood and early adolescence (Greco & Morris, 2005; Greca & Lopez, 1998; La Greca & Harrison, 2005; Rao et al., 2007; Zimmer-Gembeck, Hunter, & Pronk, 2007). As the contact with children born in Ireland measure assesses dimensions of intimate friendship, it was predicted that high levels of contact would have a negative relationship with depressive symptoms and a positive relationship with the 'freedom from anxiety' subscale. Pearson's correlations were performed to test this hypothesis. Tests confirmed the significant relationships between contact and freedom from anxiety ($r = .21, p = .004$) and depressive symptoms ($r = -.22, p = .002$), affirming a positive association between close forms of contact and mental well-being.

5.4 - BUILDING A MEASURE OF CONTACT WITH MIGRANT CHILDREN

The first part of this chapter presented the psychometric information for the Contact with Children Born in Ireland scale. Now, the psychometric information for the Contact with Migrant Children scale will be presented and discussed. As with the previous measure, the results of non-parametric item response theory scaling analyses will be presented first, followed by testing of criterion and convergent validity.

MOKKEN SCALING ANALYSES: BUILDING A SENSITIVE MEASURE

Following the Mokken analysis of the ‘Contact with Children Born in Ireland’ items, a similar analysis was conducted on the ‘Contact with Migrant Children’ items. While the items themselves are nearly identical to those in the previous scale, the CFA confirmed that they are indicators of a unique and separate underlying trait. For that reason, they must undergo the same rigorous testing procedure to determine their suitability for scaling.

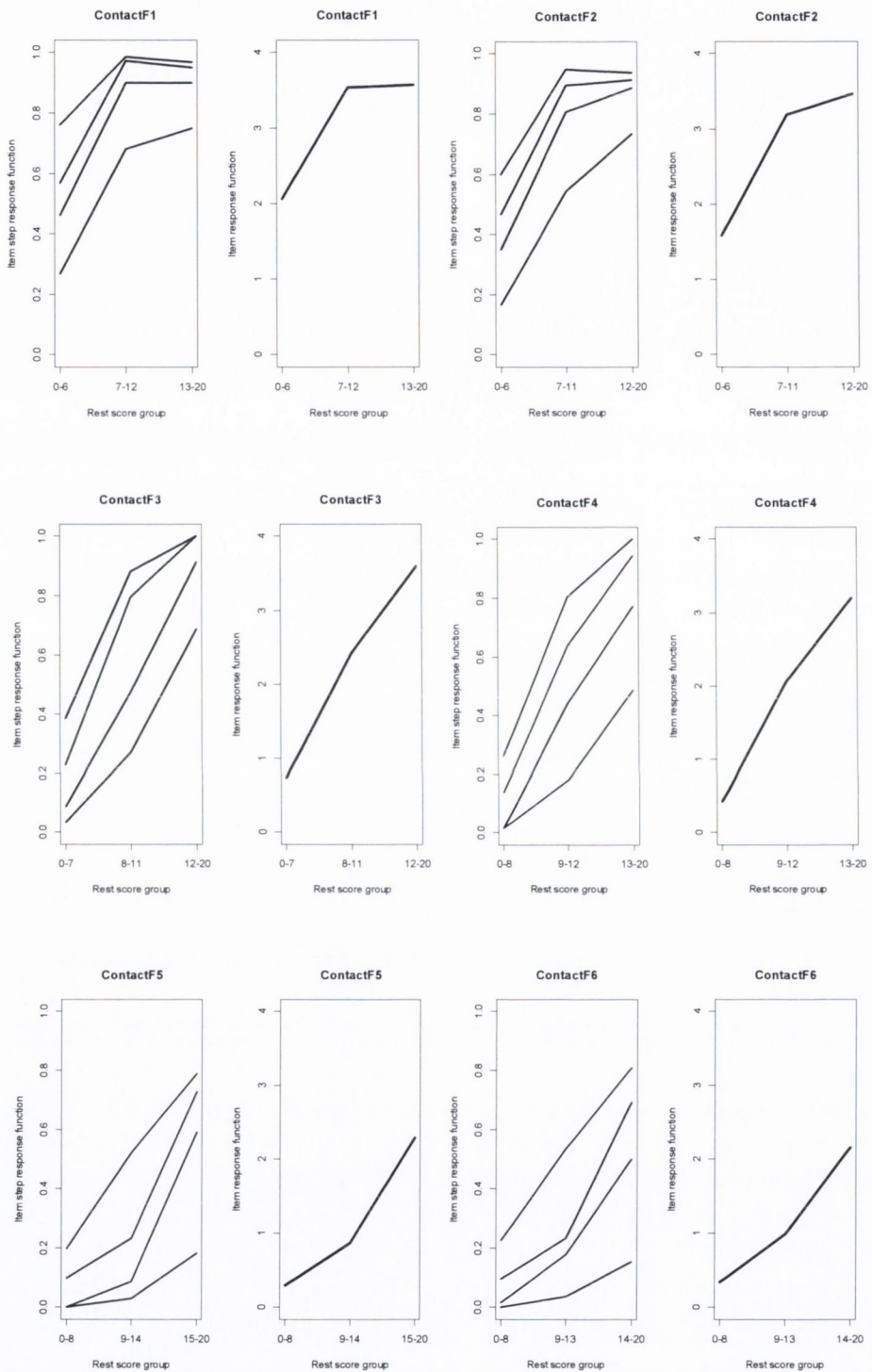
Loevinger’s scalability coefficients (*Hi*) were calculated for the six ‘contact with migrant children’ items and for the total scale (*H* coefficients). All items strongly satisfied the assumption of unidimensionality with coefficients ranging from 0.55 to .66. The *H* coefficient indicated that the items formed a very strong scale, with a score of 0.62 (Loevinger, 1948) . This shows that all items are successfully tapping into the same underlying construct, affirming unidimensionality and local independence. *Hi* coefficients for all items are included in Table 20.

Table 20: Unidimensionality and monotonicity output for contact with migrant children items

Contact Item	Mean	Hi	#ac	#vi	#zig	#crit
Talk to in someone born outside of Ireland in school?	4.04	0.56	12	0	0	0
Play with someone born outside of Ireland in School?	3.81	0.55	12	0	0	0
Talk to someone born outside of Ireland outside of school?	3.41	0.66	8	0	0	0
Play with someone born outside of Ireland outside of school?	2.93	0.66	10	0	0	0
Play over at someone born outside of Ireland’s house?	2.17	0.62	8	0	0	0
Invite someone born outside of Ireland over to your house?	2.24	0.60	10	0	0	0

The monotonicity assumption was investigated using the observable property manifest monotonicity function (Sijtsma & Molenaar, 2002). As with the previous analysis, the restscore groups were set to a minimum of 55 (Stochl et al., 2012). All items met the monotonicity assumption by increasing along the latent trait, establishing their ability to discriminate between respondent contact levels. All items returned a crit score of zero. The monotonicity plots for the ‘contact with migrant children’ items are presented in Figure 10. Similar to the previous scale, the ‘easiest’ item was ContactF1 (how often do you talk to someone born outside of Ireland in school?). This item is able to discriminate well between those with low and medium levels of contact, but unable to properly discriminate between those with medium and high levels of contact. The remaining five items, however, all demonstrate a strong ability to distinguish between respondents based on levels of contact.

Figure 10: Monotonicity plots for 'contact with migrant children' items



The next stage of testing involved checking item ordering using the manifest invariant item ordering method (MIIO) (Ligtvoet, van der Ark, te Marvelde, & Sijtsma, 2010). Statistical tests determined that there were two possible violations of item ordering between ContactF2 and ContactF3. However, the t scores were not significant ($t = 0$) and the crit scores were also below

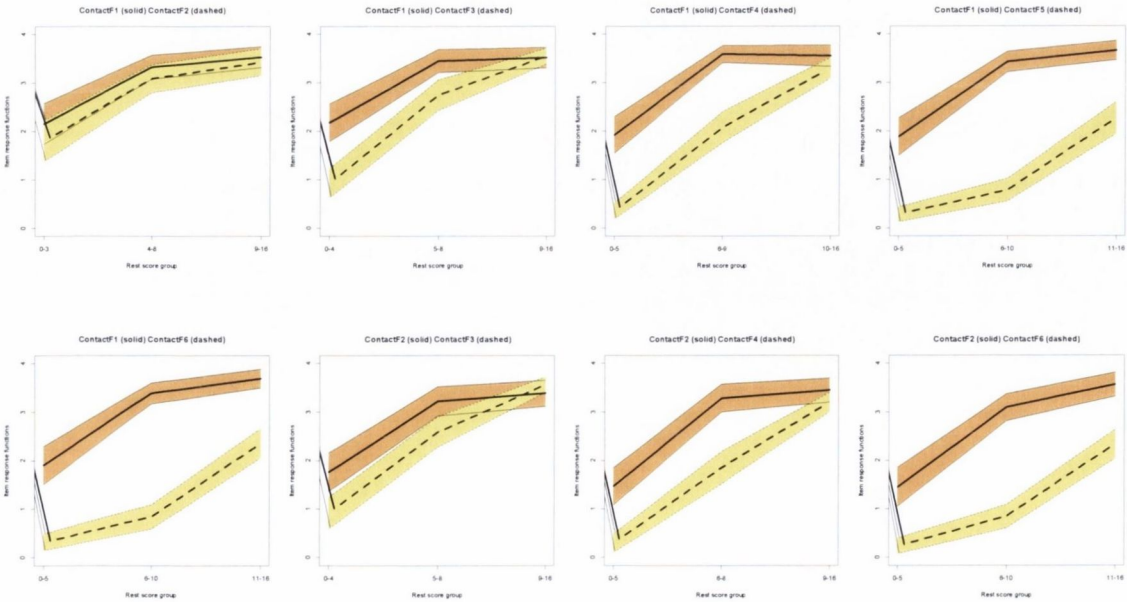
the standard value for a 'problematic' non-intersection (crit = 43, 38). An abridged output of the IIO results are presented in Table 21.

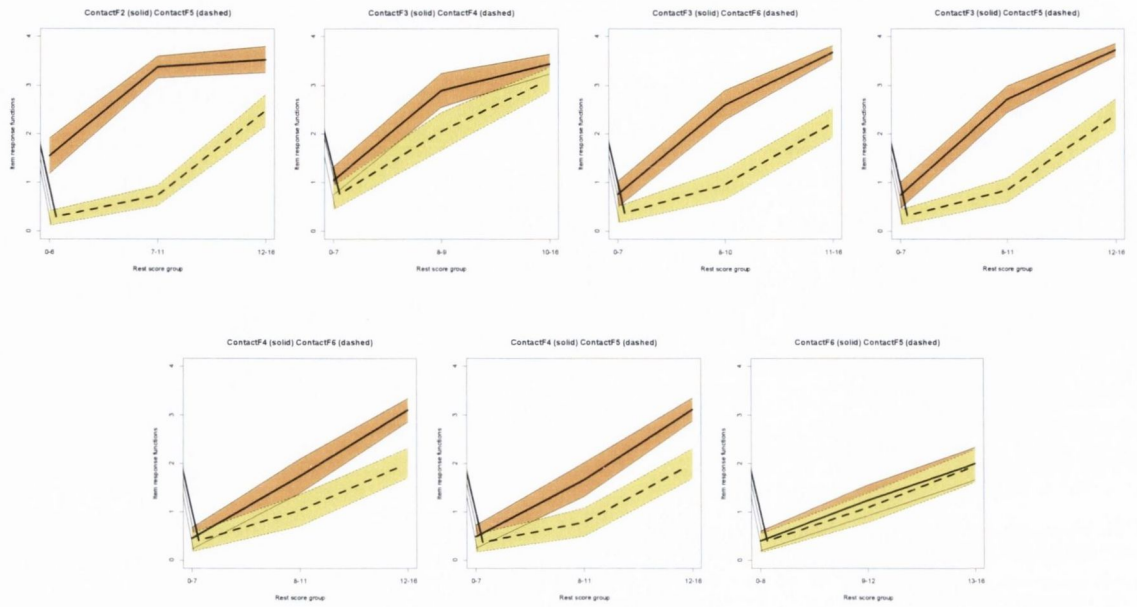
Table 21: Abridged IIO results for contact with migrant children items

Contact Item	Hi	#ac	#vi	tmax	#tsig	#crit
Talk to in someone born outside of Ireland in school?	0.56	10	0	0	0	0
Play with someone born outside of Ireland in School?	0.55	10	1	1.1	0	43
Talk to someone born outside of Ireland outside of school?	0.66	10	1	1.1	0	38
Play with someone born outside of Ireland outside of school?	0.66	10	0	0	0	0
Play over at someone born outside of Ireland's house?	0.62	10	0	0	0	0
Invite someone born outside of Ireland over to your house?	0.60	10	0	0	0	0

The hierarchical structure of the items was further examined using IIO plots. Figure 10 presents the plots for all item pairs. The overlap between ContactF2 and ContactF3 is a visible but very minor violation of intersection. The plot examination reinforced the statistical finding that the IIO violation is not severe enough to warrant the remove of an item from the measure. Additional inspection of the IIO plots demonstrated that apart from the most common form of contact (ContactF1), all items were able to discriminate between low, medium, and high levels of contact with migrant students. Non-intersection of the remaining items verifies the hierarchical structure of the measure.

Figure 11: IIO plots for contact with migrant children items.

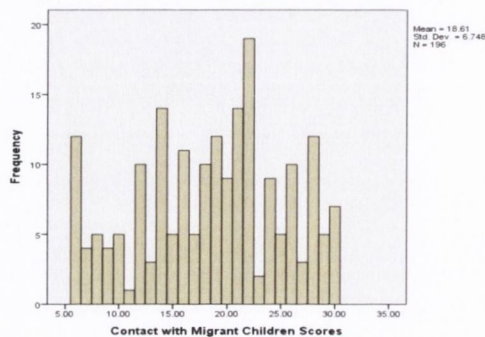




The six items for ‘Contact with Migrant Children’ satisfied the requirements for the strong Mokken double monotonicity model, generating a scale that is unidimensional, sensitive, and consistent. To further test the reliability of the new measure, three coefficients were calculated. The coefficients reaffirmed that the six items construct a strong scale (Cronbach’s Alpha = .86, Guttman’s Lambda 2 = .88, Rho = .88).

The final ‘Contact with Migrant Children Scale’ consists of six items, each with five possible response categories. Scores were generated by summing the responses as follows: 5 = Everyday, 4 = A few times a week, 3 = About once a week, 2 = A few times a month, 1 = Almost never. Thus, final scores could range from 6 (indicating almost no contact with migrant children) to 30 (indicating every day, highly familiar contact with migrant children both in and out of school). The mean score for the contact with migrant scale in the current sample was 18.61, SD = 6.75. A histogram of the scale’s distribution is presented in Figure 12.

Figure 12: Distributions of the Contact with Migrant Children Scale



BUILDING VALIDITY OF THE CONTACT WITH MIGRANT CHILDREN SCALE

Following the Mokken scaling analysis, the psychometric evaluation of the Contact with Migrant Children measure continued with validity testing. Criterion validity of the scale was tested against known group outcomes and previously validated measures of happiness, self-concept, and mental well-being.

The relationship between generational status and contact with migrant children

First and second generation migrant children have been shown to have close intra-ethnic friendships and high levels of intra-ethnic contact both in and out of school (Altinyelken, 2009; Curry et al., 2011; Titzmann & Silbereisen, 2009; Windzio, 2012). Thus, it was hypothesized that contact with migrant children would be higher for first and second generation migrants than it would be for multi-generational Irish children. Analyses of variance (ANOVA) were conducted to examine the mean differences between generations. In line with the prediction, contact levels were highest for first generation migrants ($n = 67$, $M = 20.46$, $SD = 5.78$), followed by second generation migrants ($n = 92$, $M = 19.13$, $SD = 6.86$), and then multi-general Irish ($n = 37$, $M = 13.95$, $SD = 6.08$). The effect of generational status on contact with migrant children was highly significant [$F(2, 193) = 13.08$, $p = 0.00$]. Tukey's posthoc test revealed a highly significant difference in contact levels between multi-generational Irish children and both first and second generation migrants (1st: $p < .001$, 2nd: $p < .001$). This supports findings that both minority and majority group children are more likely to engage in close forms of contact with in-group members than with out-group members.

The relationship between ethnic composition of the school and contact with migrant children

Multi-ethnic schools serve as a point of compulsory interaction for children of diverse ethnic and cultural backgrounds. Some international research has suggested that high levels of ethnic diversity contribute to children developing more out-group friendships and positive inter-ethnic attitudes (Juvonen, Nishina, & Graham, 2006; A. Smith & Schneider, 2000). Others argue that it may actually trigger mistrust and lead to separateness and the formation of in-group friendships (Putnam, 2007; Vervoort, Scholte, & Scheepers, 2011). Regardless of the nature of inter-ethnic relations in diverse schools, the schools serve as a point of inter-ethnic *contact* if nothing else (Singleton & Asher, 1977). Therefore, it is hypothesized that contact with migrant children would be significantly higher in more ethnically diverse schools. Schools were divided into two categories based on the percentage of 'minority' students enrolled. Schools with more than 60% first or second generation migrant students were classified as 'ethnically diverse'. An independent sample T test confirmed the hypothesis that children in ethnically diverse schools

($M = 19.77$, $SD = 6.67$) had more contact with migrant children than those in more homogenous schools ($M = 16.55$, $SD = 6.43$; $t(194) = -3.30$, $p = .001$).

The relationship between happiness, self-concept, and contact with migrant children

The association between intimate friendships and happiness and self-concept is well established in the international literature (Bishop & Inderbitzen, 1995; Holder & Coleman, 2009; Rigby & Slee, 1993). For many first and second generation migrant children, intimate friendships are formed with other migrant / ethnic minority peers (Altinyelken, 2009; Barron, 2011; Curry et al., 2011; Hsin-Chun Tsai, 2006). Among children who have both in-group and out-group friendships, it has been widely reported that minority children rate their in-group friendships as more stable and of a 'higher quality' than out-group friendships (Aboud et al., 2003; Baerveldt, Van Duijn, Vermeij, & Van Hemert, 2004; González, Herrmann, Kertész, & Vicsek, 2007; Kao & Joyner, 2004; Schneider, Dixon, & Udvari, 2007). Therefore, it was predicted that contact with migrant children would be positively correlated with happiness and self-concept for first and second generation migrant children.

Pearson's correlations were performed to examine the relationship between variables based on generational status. Surprisingly, contact with migrant children was not significantly correlated with happiness ($r = .03$, $p = .997$) or self-concept ($r = .07$, $p = .601$) for first generation migrants. Among multi-generational Irish children, there was a very slight, non-significant negative correlation between contact with migrant children and self-concept ($r = -.05$, $p = .99$) and no significant relationship with happiness ($r = .20$, $p = .91$). For second generation migrant children, there was a highly significant positive correlation between contact with migrants and self-concept ($r = .38$, $p = .000$), but no significant relationship with happiness ($r = .15$, $p = .139$). It was predicted that there would be a positive association between contact with migrants and well-being for second generation migrants but also for first generation migrants. As such, the measure did not perform entirely as predicted.

The relationship between mental well-being and contact with migrant children

As discussed early, social acceptance and positive peer relationships are important predictors of children's overall adjustment and mental health (Parker & Asher, 1987; Sawyer et al., 2001). Intimate friendships, in particular, are associated with lower levels of anxiety and depression in children and adolescents (Greco & Morris, 2005; Greca & Lopez, 1998; Greca & Harrison, 2005; Rao et al., 2007; Zimmer-Gembeck et al., 2007). Given the widely reported tendency for many first and second generation migrants to form close friendships with other minority children, it

was predicted that contact with migrant children would be negatively correlated with depressive symptoms and positively correlated with freedom from anxiety for these subgroups.

Pearson's correlations were performed to examine the relationship between variables based on generational status. As with the previous outcome variable, there were no significant correlations for first generation migrants (d: $r = .10$, $p = .934$; f: $r = .00$, $p = .98$) or multi-generational Irish children (d: $r = -.12$, $r = .500$; f: $r = .20$, $p = .906$). Significant associations were found for second generation migrant children for both depressive symptoms ($r = -.26$, $p = .011$) and freedom from anxiety ($r = .38$, $p < .001$).

5.5 - CONTEXTUALIZING THE CONTACT MEASURES: SUPPLEMENTAL QUALITATIVE FINDINGS

Up to this point, the evaluation of the new contact scales has been largely quantitative in nature. Construct validity was built through the confirmation of predicted of underlying traits through a confirmatory factor analysis. Criterion validity was built by testing predicted group performances against findings from the national and international literature. Concurrent validity was built by testing the associations between the new scales and outcome measures of well-being and mental health.

Thus, the contact scales have proven to be sensitive, suitable, and accurate measures of key elements of inter-ethnic relations among children. Specifically, they are able to quantitatively capture levels of contact with two populations: first generation migrant children and children born in Ireland. A descriptive analysis of the scales showed that children generally have higher levels of contact with children born in Ireland than they do with migrant children. This was true of contact during school and out of school, and held true for all children regardless of generational status. A total of 85.7% of children talked to someone born in Ireland at school every day, and a 77% of children played with someone born in Ireland at school with the same frequency. However, only 56.1% of children talked with a migrant child at school every day, and approximately half (50.5%) of children played with a migrant child at school with the same frequency. As expected, the frequency of out of school contact was lower than in school contact; 85.2% of children played with someone born in Ireland outside of school at least *once a month* and 69.4% of children playing a migrant child outside of school with the same frequency.

Discrepancies in contact became more visible when contact levels were compared along the lines of ethnic background. Only 27% of multigenerational Irish children played with a migrant child at school every day, compared with 58% of minority students. These patterns were similar with regards to out of school contact, as 40.5% of multigenerational Irish children played with a

migrant child at least once a month, compared with 77.1% of minority children who did so with the same frequency.

These descriptive findings are in line with recent qualitative research which found that children had very little out of school, cross-ethnic contact (Curry et al., 2011). To gain a more complete picture of the contextual forces behind children's inter-ethnic contact in the present sample, the final section of this chapter provides qualitative data from the current study. For the purpose of this exercise, only qualitative data pertaining to inter-ethnic contact will be discussed. The aim of this analysis is to provide a more rounded picture of the nature of inter-ethnic contact among children and to allow for a more nuanced interpretation of the descriptive statistics and quantitative validation outcomes. Rather than provide qualitative data for each of the two scales separately, it was decided to present all of the data pertaining to inter-ethnic contact together in the same section. Children's peer interactions do not happen in silos or in vacuums; contact between children born in Ireland and migrant children are symbiotic constructs that are interrelated and dependent on a variety of contextual factors, as the qualitative findings will demonstrate. The remainder of this section is presented as such: the qualitative findings related to inter-ethnic contact are presented, followed by a list of ways in which the qualitative findings dovetail with the quantitative findings. This provides triangulation for the preliminary quantitative data and also further validates the performance of the scales during validation testing.

As indicated in the criterion testing and in the scale descriptives, a social separateness appeared in the current sample drawn along the lines of majority and minority ethnic groups. In schools with a mix of multigenerational and minority students, this 'separateness' was evidenced through school time observations and qualitative interviews. When asked about their close friends, multigenerational Irish students almost exclusively named other multi-generational Irish children. Minority children typically named other minority children. There was normally no explicit mention of ethnicity in this process. Rather, the claim was simply that they played with who they played with.

Interviewer: And do you know where your friends' parents are from?

Laura: My friends' parents are from – um – I think Sarah's are from Dublin, yeah. And Aoife's is from Clonmel. And Tara's is probably from Dublin, yeah. And I think Lucy's dad is from Dublin.

---R203, multi-generational Irish girl, third class

Interviewer: And what about your best friends at school? Where are they from?

John: Definitely Ireland.

--- R205, multi-generational Irish boy, third class

Interviewer: Who do you play with at yard time?

Charlie: Mostly I play ice and snow with my friends like Sarah, Grace, Mike, John O'Connell, John Walsh and who else is there? Anne. Sometimes Robbie [multigenerational Irish children].

Interviewer: Is there any reason you don't play with the other kids at yard time?

Charlie: Well that's really just who I want to play with at yard.

---R305, multi-generational Irish boy, second class

Interviewer: Do you ever play with the other girls?

Sofia: I only play with Fatima [1st generation Libyan girl] because she's my best friend.

--- R309, 1st generation Ukrainian girl, second class

While most children didn't explicitly identify ethnicity as a determinate of school-based friendships, some did mention it when describing the make-up of certain 'cliques'. This suggests that some children see ethnicity as a noteworthy characteristic of friendship circles.

Interviewer: And you don't play with Fatima [1st generation Libyan girl]?

Tara: No

Interviewer: What does she play?

Tara: She plays with Sofia [1st generation Ukrainian girl]. And Iram [Pakistani girl adopted by an Irish family]. And with this boy, his country is quite hard to say. His name is Pedro, he's from Venezuela.

--- R303, multi-generational Irish girl, second class

While this tendency towards separate play was common and often non-confrontational, there were some occasions where minority children appeared to be actively excluded from yard time group activities.

Sofia: At yard time, sometimes I play chasing or teddies or something else. Or that game – what is called? Ice and snow. But I really don't play ice and snow.

Interviewer: Why don't you normally play ice and snow?

Sofia: Well I need lots of people. Not just Fatima. I need lots of people but Sarah always plays ice and snow.

Interviewer: So who do you play with at yard time?

Sofia: Fatima. But Caroline is always playing with Sarah and Laura and Gill and Tara and Aoife [multi-generational Irish girls].

Interviewer: But you don't usually play with those girls?

Sofia: No because they really want to play with Caroline. And Caroline is my best friend and me and Fatima are trying to talk to her but Laura is calling her and calling her and she says 'sorry Laura is calling me' and then she goes.

---R309, first generation Ukrainian girl, second class

Stories of majority group girls being 'summoned' away from minority girls on the yard also surfaced in school two. In the following example, one minority girl explains that her friend 'has' to play with the other girls, suggesting she interprets the association as obligatory rather than voluntary.

Interviewer: And who do you like to play with at school?

Nijea: Emily [minority group girl]. She isn't in my class, she's in 2nd.

Interviewer: Oh ok. Is there anyone from your class that you like to play with at yard?

Nijea: (pause) I play with Abbey sometimes.

Interviewer: OK. Just sometimes?

Nijea: Because sometimes she has to play with someone else. Like she has to play with Brida, Anna, and that stuff [multigenerational Irish girls].

---R207, first generation Nigerian girl, third class

Exclusionary yard time maneuvers are discussed further in the following chapter. For now, it is important to note that children often socialized in 'cliques' on the yard and cross-over was not typically observed. For girls in schools two and three (schools where the majority group was multigenerational Irish), these clusters were drawn almost exclusively along lines of ethnicity. A teacher at school two addressed the segregated nature of yard time play:

It's funny. I was only thinking of this of last week. They do, they do have a tendency to form little groups outside with the Irish girls over there and the migrant girls over

there... And it doesn't matter that the migrant girls, one's from Nigeria and one's from Lebanon and one's from... I don't know, Thailand. They're happy out together. Yeah.

---T02, language teacher

The previous example illustrates an attitude that was common among teachers in the pre-test and pilot schools. When asked about the nature of inter-ethnic relations, many would acknowledge that there was a degree of ethnic separateness during yard time. However, there was also a tendency to see this as 'normal' and largely unproblematic behavior.

Maybe there is [a ethnic separateness]. But is that bad, necessarily? Who are we to say 'No! You *have* to go play together! Go on!' If everyone's happy, I don't know if it's bad.

---T04, classroom teacher

In pre-test school one, the overwhelming majority of children (99.2%) were first or second generation migrants. 'Cliques' behaviour and yard time exclusion among girls was observed, but it differed from the other schools due to the absence of a traditional 'majority' ethnic group. The unique ethnic make-up of the school contributed to the presence of many 'inter-ethnic' friendships, as children from diverse national and cultural backgrounds formed close bonds. However, there were also several examples of friendships formed along the lines of shared language or cultural background.

Interviewer: OK. And what was your first day like here? Do you remember?

Stefan: I didn't really know English that well and I was talking to my friend who's Romanian as well and I didn't really know what was going on. Then he explained to me more... He told me like how it's going on, like that we have lunch and we bring food to our class and that we have spellings for homework and that kind of things.

Interviewer: And did you know him before you started here?

Stefan: No. He knew I was Romanian so he spoke to me in Romanian.

---R105, 1st generation Romanian boy, fourth class

At this school in particular, there were other examples of second and 'acculturated' first generation migrants taking new migrant students 'under their wing' and helping them adapt to their new environment. In the following example, two girls separately describe how their close friendship developed as a result of their shared language. One girl was born in the Angola and raised in Portugal before migrating to Dublin. The other girl was born in Ireland to Brazilian

parents. Despite the cultural differences inherent in their backgrounds, the common language between them served as a foundation for their friendship.

Interviewer: So who are some of your friends in class?

Juliana: There's Jessika [1st generation Angolan girl]. I can always count on her cause like, I knew her since I was about 5 or 6 in first class. She couldn't even speak English and I was talking to her in Portuguese and I was teaching her and now we always play together in the yard. She's my best friend here.

--- R109, second generation Brazilian girl, fourth class

In a separate interview, her friend relays a similar account of the story:

Interviewer: Can you remember what your first day at school was like?

Jessika: Well, it was a bit embarrassing because it was lunch time and then I started crying but then friends came over and started talking to me. And this girl, she has the same language as me and so we started talking together and now we're best friends.

---R110, first generation Angolan girl, fourth class

In this extremely diverse school, finding an element of 'sameness' in a peer served as a jumping off point for initial contact and subsequent friendship formation. Potential cultural differences between first and second generation migrants did not seem to deter the formation of bonds amongst those with a shared national or linguistic background.

Outside of school, children had various levels of supervised and unsupervised peer contact in a variety of settings. For some children, peer contact occurred in formal arenas such as religious groups or extracurricular after-school activities. For others, it was less formal and involved playing outside with children in the neighbourhood or play-dates arranged by parents.

In line with in-school contact, structured out of school contact was largely homogenous. In school three, many multi-generational Irish students were involved in formal afterschool activities such as sports groups or dance lessons. When asked whether any children from other countries attended these programs, the answer was typically no.

Interviewer: Do you do any afterschool activities?

Cormac: Yeah I do tae-kwon-do, I do basketball, I do summer camp. I do sports camp. What else do I do?

Interviewer: Do any of your friends from your clubs or activities, do any of them come from different countries?

Cormac: No.

---R307, multigenerational Irish boy, second class

Gill: Monday I have dance class with a girl in my class. And Tuesday I have swimming and Wednesdays I have sports camp and Thursday I have (pause) ehm, swimming again and Friday I have Irish dancing. Saturdays I do football.

Interviewer: Are any of the other kids in your activities from another country?

Gill: Ehm... there was one in football but she moved to another group.

---R312, multigenerational Irish girl, second class

Megan: I go to this place called girls brigade. Its lots of girls, like. We sing and dance and stuff.

Interviewer: That sounds cool. And out of the girls there with you, where would you say they are from? [asks to select her answer off the prompt card]

Megan: All born in Ireland.

---R204, multigenerational Irish girl, third class

For first and second generation migrant children, the most common, structured out of school time activities were religiously affiliated. Fifty six per cent of minority children attended a religious service at least once a week, compared with 21.6% of multigenerational Irish children. Minority children often discussed their out-of-school friendships in relation to their religious organization.

Interviewer: Who are your best friends in the class?

Malik: I don't really have any best friends in the class.

Interviewer: Do you have best friends outside of the class?

Malik: Outside of school, in my church. My best friend in church, his name was Namdi. Then my second one was Moses. And now my third one is John.

Interviewer: Do they live near you or do you see them all at church?

Malik: I see them all at church. And sometimes they come over to my house. Or I come to their house.

--- R103, second generation Nigerian boy, fourth class

Interviewer: And do you ever go play at anyone else's house from class?

Najea: I sometimes go to Eugina's house. She's in this school. In first class. She's at my church.

---R207, first generation Nigerian girl, third class

Interviewer: Ok and how often do you go to mosque?

Fatima: Saturdays and Sundays.

Interviewer: Is there anyone from school who goes to mosque?

Fatima: Um, there's a girl called like my name – she has the same name. And we play together and then we got a new friend and then I got even more friends.

---R306, first generation Libyan, second class

Peer contact facilitated through religious organizations had the potential to be multi-cultural but almost exclusively 'minority'. One example would be mosque, where there could be a variety of national and cultural backgrounds with a shared religious practice. There may be lots of inter-ethnic diversity, but the majority of those attending would be considered a minority when compared with the traditional Irish majority (white, Catholic). Among Christian migrant children, elements of ethnic homogeneity also emerged when discussing religion. A few children referenced skin colour when discussing their church, suggesting that they may interpret it as a salient feature of those in attendance.

My two best friends from another school, they are having a barbeque while their parents are away in Spain. They're in my church so they're my colour.

---R110, first generation Angolan girl, fourth class

Interviewer: Do you go to church?

Najea: I go to church... There's only black people in my church.

---R207, first generation Nigerian, third class

The tendency toward intra-ethnic contact was also seen in less formal out-of-school activities. For many children, play-dates were arranged by their mothers and often dependent on parental social circles. When describing their arranged play dates, children were often interacting with others in their same ethnic group.

Interviewer: And do you ever go play at anyone else's house?

Kelly: Yeah I play at David's house and that's it because my mommy only knows David. And my mommy knows more people but she only knows Anne's mommy first. She knows Anne more because my sister went with Anne's mom to school [multigenerational Irish children].

---R302, multigenerational Irish girl, second class

We don't organize lots of things because I think my mom only knows Emma's mom – that's all and Grace's mom and Deirdre's mom but not Derek's mom so I only have three peoples moms she knows so I don't have many playdates [multigenerational Irish children].

---R201, multigenerational Irish girl, third class

Interviewer: Do you ever invite friends from class to play at your house?

Fatima: Yeah, Aamir. Just Aamir. Cause my mom lets me just one boy. And my mom knows Aamir's mom [second generation Libyan boy].

---R306, first generation Libyan girl, second class

The most common form of unstructured out-of-school contact was neighborhood play. The amount of inter-ethnic contact at the neighborhood level was in part dependent on the ethnic makeup of the locality itself. The ethnic composition of neighborhoods varied. Some children lived in largely homogenous areas, while other communities were more diverse.

Eh, I think everyone was born outside of Ireland except for my sister. They all speak different languages. No one speaks English except for my sister and me.

---R109, second generation Brazilian girl, fourth class

Interviewer: Most of the people who live in your estate, how would you describe them?

Alex: They're mostly African. Except for me and Lana [second generation Nigerian classmate].

---R105, second generation Nigerian girl, fourth class

Three of them were born somewhere else. Two of them are sisters. One of them, I don't know where she's from but I'd say that she's from a different country.

---R301, multigenerational Irish girl, second class

Well in my old estate, there's these girls called Ann. Ann and Miriam. And Ann is born in Ireland and Miriam was born in Ireland. And my friends, well, his name is Nate and he lives near my neighbourhood. And he's Romanian.

---R108, second generation Nigerian girl, fourth class

Interviewer: And about how many friends do you have in your neighborhood?

Paul: About 10.

Interviewer: Wow that's a lot of friends. And would most of your friends in your neighborhood be born in Ireland or born outside of Ireland or-

Paul: Well one of them is from Latvia but he can speak English perfectly. And he's been in Ireland since about 9 or 8 years ago. Everyone else is Irish.

---R202, multigenerational Irish boy, third class

As indicated in the previous quote, language was as a key determining factor in neighbourhood peer contact. For some majority group children, others' lack of English fluency was interpreted as 'strange' and in extreme cases, offensive. One multigenerational Irish girl describes her interactions with the migrant children living in her neighbourhood:

Interviewer: Do you ever play with them?

Aoife: No. Well, they're being *mean* to me because I really – because – they speak another language, not English or Irish. I really don't know what they're saying because it sounds like "alkjnlgawig" I don't know what they're saying. And then I just went to them and they keep saying that to me, the other language. And I keep saying "hello" and they keep saying "ra ra ra". I don't know what they're saying.

---R308, multigenerational Irish girl, second class

On the whole, multigenerational Irish children were more likely to engage in unsupervised neighborhood play than migrant children, though this wasn't exclusively true. Multigenerational Irish children would often talk about being 'called for' by other children or 'calling over' to their friends who lived nearby. There seemed to be less supervised play for multigenerational Irish children in these circumstances.

Interviewer: And who do you play with?

Sean: Well, all my friends on my road. Like my next door neighbors and some kids that live up the road from me and I call for them or they call for me.

---R210, multigenerational Irish boy, third class

Interviewer: How many friends do you have in your neighborhood?

Shane: Probably 17.

Interviewer: 17? That's a lot of kids. Do you play outside a lot?

Shane: Yeah probably every day unless I'm sick.

---R313, multigenerational Irish boy, third class

Most multigenerational Irish children described largely homogenous play circles in their neighborhoods, though a few also had minority group friends.

Interviewer: And out of all of your friends that live in your neighborhood – just think about them for a minute – how many of them would you say were born in Ireland?

Eoin: All born in Ireland.

Interviewer: All born in Ireland. And what about the rest of the people who live in your neighborhood?

Eoin: Well there are a few people who live in my neighborhood who I don't play with who are from different countries. Like one's from Poland, some are Arab, one's half Moldovan, half German.

---R304, multigenerational Irish boy, second class

Interviewer: Do you have any friends in your neighborhood?

Brian: Yeah.

Interviewer: About how many?

Brian: There's lots, I'd say 10 or 11.

Interviewer: Wow, that's lots. And out of all of your friends that live in your neighborhood – just think about them for a minute – where would you say they were from? [prompt card]:

Brian: All born in Ireland.

---R209, multigenerational Irish boy, third class

I have one friend on my road and he is from Africa and he is Muslim. He has a big, big, family.

---R314, multigenerational Irish boy, second class

Minority children were generally less likely to play outside with peers in their neighbourhoods. For some, this was a restriction enforced by their parents, while others stated a preference for playing indoors or with their siblings and extended family members.

Interviewer: Do you play outside in your neighbourhood?

David: Not usually. Cause my mom won't let me cause it's too cold.

---R104, first generation Nigerian boy, fourth class

Interviewer: Do you have any friends in your neighbourhood?

Fatima: No.

Interviewer: Do you ever go play outside?

Fatima: Just sometimes cause my mom doesn't let me.

---R306, first generation Libyan girl, second class

Interviewer: Do you ever play with kids in your neighbourhood?

Najia: Only my brother and sister. I like to play with my brother and sister.

---R207, first generation Nigerian girl, third class.

Interviewer: Do you guys ever play together [referring to classmates that live in her neighbourhood]?

Jessika: A bit but I don't usually go outside cause they don't call me outside.

---R110, first generation Angolan girl, fourth class

Interviewer: Do you ever play outside in your neighborhood?

Niki: Sometimes. But I like to play with my brother. And we don't always play outside. We mostly use the xbox.

---R205, second generation Nigerian girl, third class

5.6 - CONCLUSION

Overall, the qualitative data reinforced the preliminary quantitative figures in many respects. The quantitative data showed a high level of school time contact, which was confirmed through

interviews and behavioural observations. However, it also demonstrated the presence of a level of 'separateness' between majority and minority group children. A list of coinciding and reciprocal findings includes:

- Children had a large amount of inter-ethnic contact in school. In 'cluster' schools, this did not involve contact with traditional majority group students but did involve a large amount of cross-ethnic, cross-national peer contact.
- In schools with a clear majority group population, multigenerational Irish children typically had close 'in-group' friendships. Minority group children, both first and second generation migrants, often socialized together at yard time.
- In mixed schools, the yard time 'separateness' occurred without explicit reference to ethnicity or nationality. Rather, children played with their 'friends'.
- On a few occasions, there appeared to be active exclusion of minority group girls by majority group girls. However, there was no explicit mention of ethnicity. Often, this involved inviting certain multigenerational Irish girls to play and not extending the invitation to the minority group girls.
- In the cluster school, some friendships were formed along the lines of similarity, when possible (i.e. shared language, same church, etc)
- Parents had a large influence over their children's social activities outside of school.
- Multigenerational Irish children were more likely to engage in structured out of school time activities, such as sports clubs and dancing. They were also more likely to play outside with children in their neighbourhood.
- Minority group children were more likely to attend religious services and have friends affiliated with their religious organization.
- Out of school contact was largely homogenous. There were exceptions, however, particularly at the neighbourhood level. Some children described having out-group play partners in their estate. However, language presented a barrier to out of school contact for some.

This chapter described the scaling and validation procedures for two new scales: the Contact with Children Born in Ireland Scale and the Contact with Migrant Children scale. Both satisfied the requirements for a strong, Mokken model and are reliable, valid, child-centred measures of inter-ethnic relations appropriate for use in new migrant communities. In piloting these measures, it was found that children often had high levels of school based inter-ethnic contact, but notably less inter-ethnic contact outside of school. Furthermore, more intimate types of contact associated with friendship (i.e. playing together at yard, playing together outside of

school) were often reserved for 'in-group' members. Qualitative data collected during the pre-test phase of the research provided valuable contextual information on the state of inter-ethnic contact and also served to further validate the data and the measure with convergent findings. The following chapter presents the scaling and validation procedures for three additional measures of inter-ethnic relations, with a focus on more problematic dimensions that can occur between children in new migrant communities.

CHAPTER 6: FINDINGS: BUILDING MEASURES OF PROBLEMATIC INTER-ETHNIC RELATIONS

6.1 - INTRODUCTION

This chapter describes the item selection, scaling, and validation procedure for three new measures which capture dimensions of problematic inter-ethnic relations. The pilot measure included 20 items on problematic inter-ethnic relations: five items on picking on others on the basis of ethnicity, five items on first-hand experience of bullying on the basis of ethnicity, five items on observing others getting harassed on the basis of ethnicity, and five items on feelings of perceived discrimination. The original aim was to develop four scales from these 20 items. However, as will be explained later in the chapter, only three reliable and valid scales could be produced. The initial 20 items were administered to all children, including both multigenerational Irish and minority children, as it is possible that majority populations may also experience ethnic harassment or feelings of perceived discrimination.

The structure of this chapter mirrors that of chapter five. First, the results of a Confirmatory Factor Analysis are presented, confirming structural validity. Then, the psychometric information for each scale is presented sequentially. This includes unidimensionality and reliability findings, and criterion validation testing through convergent correlations and known group predictions. The chapter closes with a presentation of qualitative data, further establishing the content and construct validity of the new measures and allowing for the more nuanced elements of problematic inter-ethnic relations to be contextualized through the children's voices.

Descriptive statistics for the ethnic aggression items are presented in Table 23. As evidenced, endorsements for 'picking on others' on the basis of ethnicity are very low. This was not unexpected for two reasons. First, aggressive social behaviour is not a universal experience. On the contrary, few children actively bully others on the basis of ethnicity. Secondly, those who do bully others are often reluctant to admit it, either on the basis of social desirability or because they don't classify their behaviour as 'bullying' (Monks & Smith, 2006; Rigby & Johnson, 2006). Not only are these items highly skewed, there is also very limited variance. As such, these items are not ideal for inclusion in factor analyses, as the procedure relies heavily on variance-driven correlations. Thus, these items were removed from further analyses in this section.

As demonstrated by the frequencies, reports of personal exposure to ethnic aggression are notable. A total of 28.1% of children had been bullied because of where they were born, 22.4% because of the colour of their skin, and 17.3% because of their religion. An additional 22.4% had been bullied because of their accent and 31.6% on the basis of looks.

Table 22: Frequencies and Percentages of Ethnic Aggression Items

		Birth Country	Accent	Religion	Skin Colour	Looks
How often do you pick on someone because of their...	<i>Never</i>	178 (90.8)	169 (86.2)	186 (94.9)	181 (92.3)	168 (85.7)
	<i>About once a month</i>	8 (4.1)	15 (7.7)	4 (2.0)	7 (3.6)	19 (9.7)
	<i>About once a week</i>	7 (3.6)	8 (4.1)	4 (2.0)	5 (2.6)	6 (3.1)
	<i>Everyday</i>	3 (1.5)	4 (2.0)	2 (1.0)	3 (1.5)	3 (1.5)
	Mean	1.16	1.22	1.09	1.13	1.20
	SD	.55	.61	.43	.51	.56
How often do you get picked on because of your....	<i>Never</i>	141 (71.9)	152 (77.6)	162 (82.7)	152 (77.6)	134 (68.4)
	<i>About once a month</i>	27 (13.8)	22 (11.2)	22 (11.2)	19 (9.7)	38 (19.4)
	<i>About once a week</i>	19 (9.7)	16 (8.2)	7 (3.6)	16 (8.2)	14 (7.1)
	<i>Everyday</i>	9 (4.6)	6 (3.1)	5 (2.6)	9 (4.6)	10 (5.1)
	Mean	1.47	1.37	1.26	1.40	1.49
	SD	.85	.76	.65	.83	.84
How often do see other kids getting picked on because of their....	<i>Never</i>	101 (51.5)	97 (49.5)	116 (59.2)	102 (52.0)	94 (48.0)
	<i>About once a month</i>	32 (16.3)	46 (23.5)	40 (20.4)	39 (19.9)	43 (21.9)
	<i>About once a week</i>	40 (20.4)	30 (15.3)	30 (15.3)	26 (13.3)	33 (16.8)
	<i>Everyday</i>	23 (11.7)	23 (11.7)	10 (5.1)	29 (14.8)	26 (13.3)
	Mean	1.92	1.89	1.66	1.91	1.95
	SD	1.09	1.05	.91	1.12	1.09

One noteworthy finding of the bullying frequencies is the rather large inconsistency between observed aggressive behaviour and self-reported aggressive behaviour. Forty eight per cent of children observed others being targeted because of their skin colour, with 14.8% citing that this was a daily occurrence. This was the most frequent type of observed daily harassment according to participants. Harassment on the basis of religion was the least common self-reported and observed form of ethnic harassment.

Frequencies for the perceived discrimination items are presented in Table 23. Endorsements are higher than the ethnic bullying items, arguably because all 'ethnic' attributes are included in a single question. For example, the previous items indicated that 22.4% of children had been picked on because of their skin colour and 17.3% because of religion, whereas 53.6% of children reported having been called a bad name or teased because of *either* the colour of their skin, their accent, their religion, or where they were born. The perceived discrimination items look at ethnic discrimination holistically, while the bullying items look at certain attributes individually.

Both provide valuable and detailed information on the nature of problematic inter-ethnic relationships.

Table 23: Total frequencies of perceived discrimination items

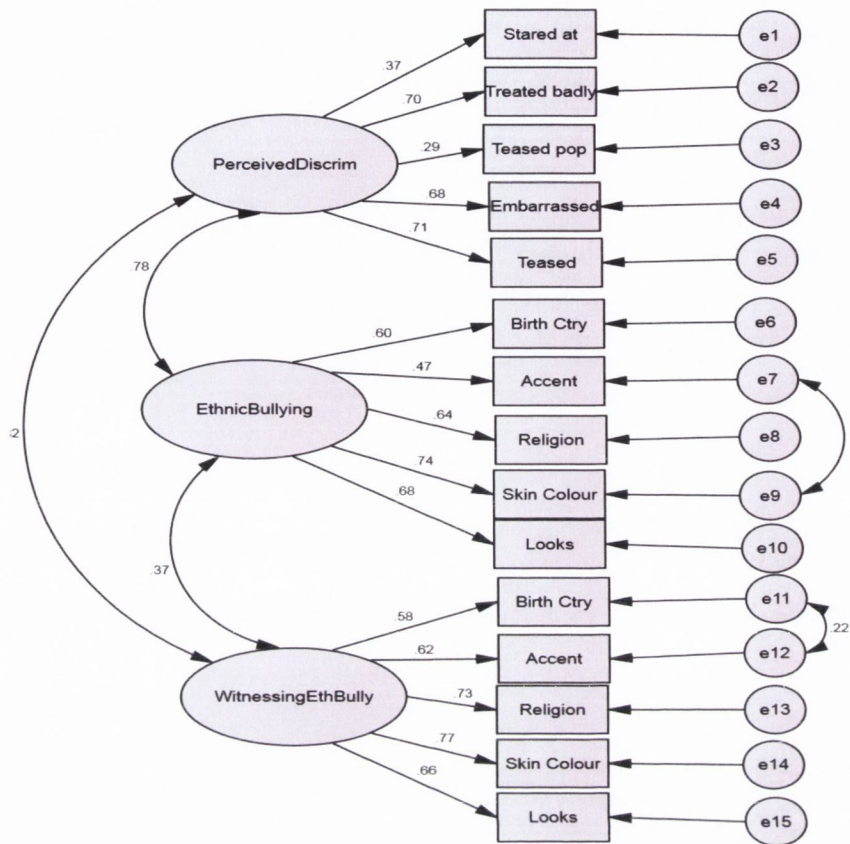
Perceived Discrimination Item		Frequency (%)
Have you ever been stared at in public?	<i>Never</i>	78 (39.8)
	<i>A few times</i>	94 (48.0)
	<i>Many times</i>	24 (12.2)
Have you ever been treated badly because of your accent, religion, skin colour, or where you were born?	<i>Never</i>	120 (61.2)
	<i>A few times</i>	55 (28.1)
	<i>Many times</i>	21 (10.7)
Have you ever been teased for not knowing a pop star, movie, TV show?	<i>Never</i>	99 (50.5)
	<i>A few times</i>	78 (39.8)
	<i>Many times</i>	19 (9.7)
Have you ever felt embarrassed because of the colour of your skin, your accent, your religion, or where you were born?	<i>Never</i>	142 (72.4)
	<i>A few times</i>	46 (23.5)
	<i>Many times</i>	8 (4.1)
Have you ever been called a bad name or teased because of the color of your skin, your accent, your religion, or where you born?	<i>Never</i>	91 (46.4)
	<i>A few times</i>	77 (39.3)
	<i>Many times</i>	28 (14.3)

6.2 - Verifying the Predicted Structure: Confirmatory Factor Analysis

It was hypothesized that fifteen items would capture three distinct types of problematic inter-ethnic relations among children: personal experience with ethnic aggression, observed ethnic aggression, and perceived discrimination. Because this was a clear *a priori* model established from the literature, qualitative studies, and pre-testing, a confirmatory factor analysis (CFA) was selected to confirm the hypothesized structure.

Log transformations were performed on all items in preparation for the CFA, as normal distribution is required for the procedure. As mentioned earlier, the 'bullying others' items had an extremely abnormal distribution and were highly skewed. Even after performing transformations, all five 'bullying others' items had skew values of higher than two and kurtosis values of higher than seven, which is considered too high for inclusion in a CFA (Kline, 1998; West, Finch, & Curran, 1995). Therefore, it was decided to remove these items from the CFA to prevent biased output, resulting in a three factor model of problematic inter-ethnic behaviour (experience of ethnic bullying, witnessing ethnic bullying, and perceived discrimination).

Figure 13: Path diagram for problematic inter-ethnic relations CFA



The three factor model was predicted with five observed variables influencing each latent variable. The latent variables were allowed to correlate, as it is likely that factors such as exposure to bullying, witnessing bullying, and perceived discrimination are interrelated. In addition to the three factor co-varying model, additional models including a one factor model, a two factor model, and a three factor uncorrelated model were also tested to compare goodness of fit. The two factor model combined ‘exposure to bullying’ and ‘perceived discrimination’ into one factor, in line with literature suggesting that perceived discrimination can be influenced by exposure to racist behaviour (Coker et al., 2009; Pachter & Coll, 2009). Path diagrams of all models are included in Appendix I.

First, the hypothesized three-factor measurement model was estimated using the maximum likelihood method. After the initial evaluation, modification indices predicted an improvement of fit by co-varying two pairs of items. Both pairs included related items predicting the same latent variable (birth country and accent, accent and skin colour), therefore co-variances were allowed to improve overall model fit. Of all fifteen items, only two had factor loadings of less than 0.40. Both of these indicators predicted the ‘perceived discrimination’ factor. The

remaining 13 items had strong factor loadings with their respective latent variables (>0.50). Between-factor correlation for exposure to bullying and perceived discrimination was high (0.78), building construct validity and reflecting the predicted connection between these two variables. Factor correlations between exposure to bullying and observed bullying, and perceived discrimination and observed bullying were also notable (0.37 and 0.32 respectively).

Table 24: Factor Loadings for Problematic Inter-ethnic Relations Items

Latent Variable	Observed Variable	Loading
Exposure to Ethnic Harassment	<i>Where you were born?</i>	0.56
	<i>Accent or the way you talk?</i>	0.48
	<i>Religion?</i>	0.61
	<i>Skin colour?</i>	0.76
	<i>How you look?</i>	0.68
Observing Ethnic Harassment	<i>Where you were born?</i>	0.58
	<i>Accent or the way you talk?</i>	0.62
	<i>Religion?</i>	0.73
	<i>Skin colour?</i>	0.77
	<i>How you look?</i>	0.66
Perceived Discrimination	<i>Stared at in public?</i>	0.37
	<i>Treated badly?</i>	0.70
	<i>Teased for not knowing a TV show or pop star?</i>	0.29
	<i>Felt embarrassed?</i>	0.68
	<i>Been called a bad name or teased?</i>	0.71

The model fit indices demonstrated a strong fit to the data and description of the underlying structure. While the χ^2 was statistically significant ($p=.001$), the χ^2/df ratio was 1.6, well below the good-fit standard of 5. Additional tests indicated a good fit with CFI = .94, GFI = .92, and NFI = .93. The RMSEA measured 0.05, also supporting a strong, appropriate model. In addition to satisfying the statistical requirements for good fit, the predicted model also outperformed the alternative one factor, two factor, and three factor uncorrelated models as demonstrated in Table 25. Therefore, the CFA confirmed the *a priori* hypothesis that these fifteen items predict three underlying factors related to problematic inter-ethnic relations: exposure to ethnic bullying, perceived discrimination, and ethnic school climate.

Table 25: Goodness of Fit Indices for Problematic Inter-ethnic Relations CFA Models

	χ^2	df	χ^2/df	GFI	NNFI	CFI	RMSEA
<i>Model 1: Three factor correlated model</i>	130.75	84	1.58	.92	.93	.94	.05
<i>Model 2: Three factor uncorrelated model</i>	264.97	90	2.95	.85	.75	.78	.10
<i>Model 3: Two factor model</i>	136.06	74	1.84	.91	.89	.91	.07
<i>Model 4: One factor model</i>	210.61	72	2.93	.88	.81	.80	.10

While the contact items presented in the previous chapter were designed to fit a Mokken model, the items in this chapter were designed to measure different types of problematic inter-ethnic relations. The focus wasn't on creating a hierarchical arrangement of questions. Rather, the aim was to holistically assess different elements of problematic peer relations. That being said, there are elements of the Mokken scaling process that are beneficial to non-Mokken scale construction including sensitive evaluation of unidimensionality through Loevinger's coefficients and exploration of item discriminability through monotonicity plots. The chapter goes on to evaluate the psychometric properties of these three scales through reliability testing, validation testing, and convergence with qualitative data. Comprehensive reliability testing and robust validity testing contribute to the development of scales that accurately measure key elements of problematic inter-ethnic relations in a multi-cultural environment.

6.3 - MEASURING PERCEIVED DISCRIMINATION

The evaluation of the problematic inter-ethnic relations measures begins with psychometric testing of the perceived discrimination measure. Five items were included to measure feelings of perceived discrimination in different scenarios. Each item asked children to think if they had ever been treated differently because of their birth country, their accent or the way they talk, their skin colour, or their religion. First, the reliability of the proposed scale is evaluated through Loevinger's coefficients, monotonicity plots, and supplementary internal consistency coefficients. Then, validation of the new scale is tested against predicted group performances and established outcome measures.

BUILDING A MEASURE OF PERCEIVED DISCRIMINATION

Reliability assessment of the five perceived discrimination items began by analysing the projected scale's unidimensionality. Loevinger's scalability coefficients were calculated for all five items (H_i) and for the total scale (H coefficients). Table 26 presents the coefficients for the items. Two items suggested a misfit with the scale: have you ever been stared at in public (0.31) and have you ever been teased for not knowing a pop star, TV show, or movie (0.27). Both of these items were close to the cut-off point for scale inclusion of 0.3. They were also the two problematic items on the confirmatory factor analysis, with the lowest factor loading scores on the underlying construct of 'perceived discrimination'. As a result of these low fitting items, the total scalability based on H coefficient was 0.38, which is considered a weak scale (Loevinger, 1948).

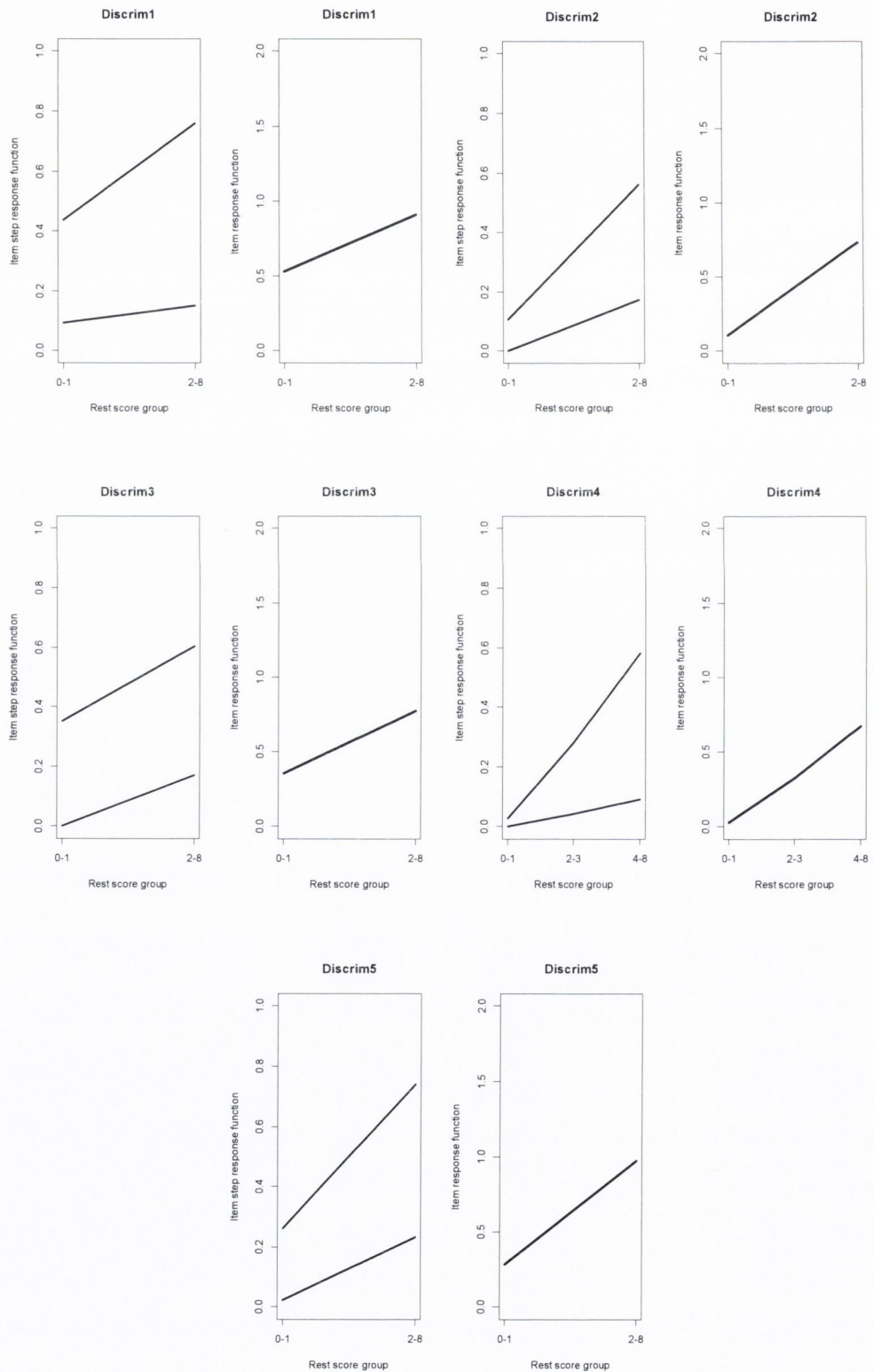
Table 26: Unidimensionality of Perceived Discrimination Items

Bullying Item	Mean	H_i
Stared at in public?	1.72	0.31
Treated badly?	1.49	0.44
Teased for not knowing a pop star, TV show, etc?	1.59	0.27
Felt embarrassed?	1.32	0.45
Called a bad name or teased?	1.68	0.44

To further examine the discriminability of the items, monotonicity plots were constructed. As discussed in the previous chapter, monotonicity plots allow for a visual examination of an item's ability to 'discriminate' between respondents based on their level of the underlying trait (i.e. perceived discrimination). Figure 14 presents the plots for all five perceived discrimination items. Item one (have you ever been stared at in public?) is the weakest item, as demonstrated by the nearly horizontal IRF line in the plot on the right and the ISRF lines in the plot on the left. As discussed previously, the ISRFs can be imagined as a 'step' between two response categories on an item. The perceived discrimination items had three possible response categories: never, a few times, and many times. The line on the bottom of the ISRF plot for item one is practically horizontal, meaning that the step between 'never' and a 'a few times' is unable to differentiate between respondents who have low levels of perceived discrimination and higher levels of perceived discrimination. While item four also has a nearly horizontal ISRF slope for this step, it has a very steep ISRF for step two (between a few times and many times). This increases the overall discriminability of that item, preventing it from being a 'weak item' like items one and three. While the slopes on the five IRF plots are not drastically different, the relative weakness

of items one and three are evident when compared with the remaining items. The inclusion of these weak items reduces the overall power of the scale, suggesting that they are not appropriate indicators of perceived discrimination for children of this age group.

Figure 14: Monotonicity plots for the perceived discrimination items



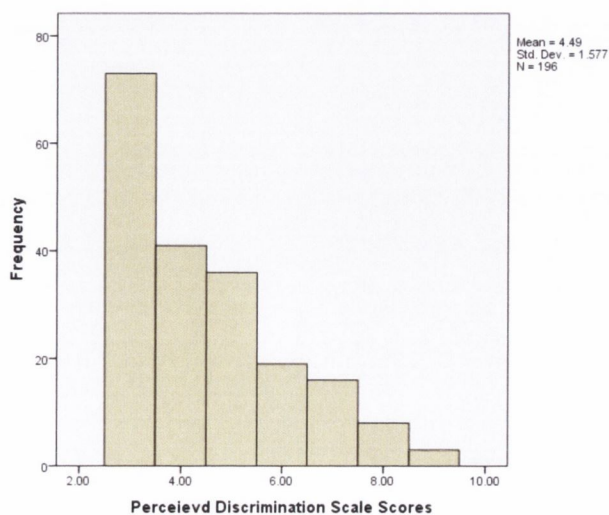
Items one and three performed poorly on tests of unidimensionality, discriminability, and in the confirmatory factor analysis. Therefore, it was decided to remove these two items, as they were unable to appropriately and sensitively measure perceived discrimination. After removing the two misfitting items, Loevinger's coefficients were recalculated for the remaining items and for the total scale. As shown in Table 27, there was a large improvement in overall scalability, with *His* ranging from .58 to .62 and the total scalability score of 0.60, well above the 'strong scale' mark of 0.50. Additional reliability tests were conducted to further evaluate the scale. Cronbach's Alpha (0.81), Guttman's Lambda 2 (0.80), and Rho coefficients (0.81) all confirmed that the three items create strong, consistent measure of perceived discrimination.

Table 27: Unidimensionality of the final Perceived Discrimination Scale

Bullying Item	Mean	Hi
Treated badly?	1.49	0.58
Felt embarrassed?	1.32	0.62
Called a bad name or teased?	1.68	0.60

The scoring procedure for the final perceived discrimination scale involves summing scores on the three individual items to create a total 'perceived discrimination' score. Response categories are scored as follows: Never = 1, A few times = 2, Many times = 3. Therefore, the lowest possible score on the measure is 3, indicating no feelings of perceived discrimination, and the highest possible score is 9, indicating frequent feelings of perceived discrimination. The mean score of the scale was 4.50, with SD = 1.58. The distributions for the scale are presented below.

Figure 15: Distribution for Perceived Discrimination Scale Scores



BUILDING VALIDITY OF THE PERCEIVED DISCRIMINATION SCALE

Following the reliability analysis, the psychometric evaluation of the perceived discrimination measure continued with validity testing. The initial confirmatory factor analysis established that the projected three factor contact model was a good fit, building construct validity for the measure and the three factor scales. Additional scaling analysis helped identify items that were inappropriate for inclusion in a unidimensional scale, enhancing the reliability of the measure. This following section goes on to build criterion validity of the scale by validating it against known group outcomes and recognized measures of happiness, self-esteem, and mental well-being.

The association between perceived discrimination and minority status

Recently, studies focusing on the effects of perceived discrimination have become more prevalent. Research on the impact of perceived discrimination, on minority children specifically, has been conducted in several multi-ethnic nations in recent years (Coker et al., 2009; Priest et al., 2013; Runions, Priest, & Dandy, 2011; Seaton, 2010). While it is true that majority group children may also feel discriminated against on the basis of ethnicity, feelings of marginalization and 'otherness' are characteristic of minority populations, even in countries with long standing histories of migration and ethnic diversity (Pachter, Bernstein, Szalacha, & Coll, 2010). Therefore, it was hypothesized that minority children would report higher levels of perceived discrimination than multigenerational Irish children. An independent T test was performed, confirming that minority children ($M = 4.74$, $SD = 1.59$) scored significantly higher on the perceived discrimination scale than majority group children ($M = 3.43$, $SD = .87$; $t(194) = -4.77$, $p < .001$)

The association between perceived discrimination and skin colour

Minority youth in Ireland come from a wide range of ethnic and cultural backgrounds. Recent studies have found that minority children have been teased or victimized at school for a number of reasons including language difficulty and skin colour (Curry et al., 2011; Devine & Kelly, 2006). However, research has also suggested that some children have the ability to go 'unnoticed' as minorities in their peer circles, as they embody typical majority group features (white, Catholic) (Karl Kitching, 2011). A study of Finnish adolescents found that 'visible' Vietnamese migrants reported higher levels of perceived discrimination than less 'visible' groups such as Russians (Liebkind, Jasinskaja-Lahti, & Solheim, 2004). Similar studies in the United States reported that Latino and African-American youth had higher levels of perceived discrimination than Caucasian children and other minority groups such as Asian Americans

(Coker et al., 2009; Pachter, Bernstein, et al., 2010; Rosenbloom & Way, 2004). It was hypothesized that minority children who are more visibly 'different' on the basis of skin colour would report higher levels of perceived discrimination. The variable 'skin colour' was created and included four broad categories: White/Caucasian, Sub-Saharan African, MENA (Middle Eastern, North African, Western Asian), and Eastern Asian.³⁴

Analyses of variance (ANOVA) were conducted to examine the mean differences between skin colour groups. Convergent with international literature, perceived discrimination levels were lowest for Caucasian children ($n = 77$, $M = 4.03$, $SD = 1.41$). MENA children ($n = 35$, $M = 4.63$, $SD = 1.51$) and Eastern Asian children ($n = 15$, $M = 4.73$, $SD = 2.06$) followed with moderate levels of perceived discrimination, while Sub-Saharan African children reported the highest levels ($n = 68$, $M = 4.91$, $SD = 1.56$). The effect of skin colour on perceived discrimination was significant [$F(2, 193) = 5.89$, $p = 0.003$]. Tukey's posthoc test revealed a significant difference in perceived discrimination between Caucasian children and Sub-Saharan African children ($p = .001$) but no other groups. This confirms the hypothesis that skin colour is associated with feelings of perceived discrimination, particularly for children of African descent.

The association between perceived discrimination and school satisfaction

Exposure to discrimination and victimization at school can decrease school enjoyment and lead to an increase in absences and subsequent poor academic performance (Glew, Fan, Katon, Rivara, & Kernic, 2005; Liebkind et al., 2004; Wong, 2009). It was hypothesized that higher levels of perceived discrimination would be associated with lower levels of school satisfaction. Pearson's correlations investigated this relationship. As predicted, there was a highly significant negative correlation, supporting international findings that exposure to discrimination is related to a lower levels of enjoyment of school ($r = -.234$, $n = 196$, $p = .001$).

The association between happiness, self-concept, and perceived discrimination

The harmful effects of discrimination and racism are well documented in the literature. Discrimination is associated with negative physical and mental health outcomes among adults and children, leading to a decline in overall quality of life and well-being (Bastos, Celeste, Faerstein, & Barros, 2010; Brody et al., 2006; Coker et al., 2009; Pascoe & Richman, 2009). Therefore, it was hypothesized that perceived discrimination would have a negative association with outcome measures of happiness and self-concept. Pearson's correlations confirmed a

³⁴ This categorization is crude and over generalized. However, it best encapsulates visible differences of ethnicity and skin colour for the purpose of this study and is employed by UNESCO in discussions and publications.

strong, negative relationship between perceived discrimination and both happiness ($r = -.34, p < .001$) and self-concept ($r = -.42, p < .001$).

The association between perceived discrimination and mental health outcomes

High levels of perceived discrimination are associated with several negative physical and mental health outcomes. Among adults, perceived discrimination has been linked to depression, anxiety, high blood pressure, substance abuse, and high stress levels (Pascoe & Richman, 2009).

Existing research on children is relatively sparse, though studies have found similar links between perceived discrimination and problematic mental health outcomes including depression, low self-esteem, and anxiety (Coker et al., 2009; Liebkind & Jasinskaja-Lahti, 2000; Nyborg & Curry, 2003; Pachter & Coll, 2009; Priest et al., 2011; Priest et al., 2013; Szalacha et al., 2003). Therefore, it was hypothesized that perceived discrimination would have a negative association with freedom from anxiety and a positive association with depressive symptoms. Pearson's correlations confirmed these hypotheses, indicating a strong negative relationship with freedom from anxiety ($r = -.40, p < .001$) and a strong positive relationship with depressive symptoms ($r = .37, p < .001$). This converges with international literature, emphasizing the serious and harmful correlates of exposure to racism and perceived discrimination.

6.4 - MEASURING ETHNIC BULLYING

The second part of the new scale evaluations focuses on the development and testing of a measure of ethnic bullying. As with the previous section, reliability will be assessed and discussed first, followed by validity testing including predicted known group performances, convergence with an internally validated bullying measure, and outcome measures of mental health and well-being. Five items were designed to measure exposure to aggression on the basis of ethnicity. These items were not constructed to fit a Mokken model, as they do not increase in 'intensity'. Rather, they were designed to tap into different types of ethnic bullying to see what attributes are being targeted in minority children. The five items were conceptualized as a scale aiming to measure one underlying construct: the experience of ethnic aggression. Therefore, performing additional reliability tests of unidimensionality through NIRT methods provided a more nuanced exploration of items and their overall scalability than relying on consistency coefficients alone.

BUILDING A MEASURE OF ETHNIC BULLYING

Loevinger's scalability coefficients were calculated for all five items (H_i coefficients) and for the total scale (H coefficients). Table 28 presents the coefficients for the items, all of which satisfied the unidimensionality assumption with H_i ranging from 0.33 to .52. Item scalability and total

score coefficients were also extracted. As a scale, the items displayed moderate unidimensionality based on H coefficients, with a total score of 0.43 (Loevinger, 1948).

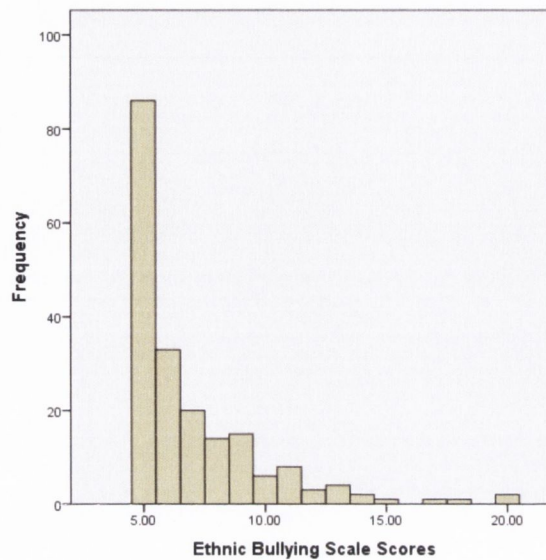
Table 28: Unidimensionality of Ethnic Bullying Items

Bullying Item	Mean	Hi
Picked on because of where you were born?	1.47	0.42
Picked on because of your accent?	1.37	0.33
Picked on because of your religion?	1.26	0.52
Picked on because of your skin colour?	1.40	0.43
Picked on because of how you look?	1.49	0.48

While all items generated *Hi* coefficients over 0.3, one item was noticeably lower than the others. The item 'have you ever been picked on because of your accent?' had an *Hi* of only 0.33, just over the cut off limit of 0.3. This suggests that this item does not fit the scale as well as the other four. While removing this item would improve the overall scalability of the measure, it also taps into a unique aspect of ethnic bullying applicable to first generation migrant children (Curry et al., 2011). As the scale has moderate strength inclusive of the item, it was decided to retain the question in the final measure to cover a breadth of possible discriminatory scenarios. Additional reliability tests were conducted to further evaluate the scale. Cronbach's Alpha (0.77), Guttman's Lambda 2 (0.76), and Rho coefficients (0.77) all further confirmed that the five items create moderately strong, consistent scale.

Thus, the final scale contains five items, all presented in Likert format. Each item asks how often you have been picked or 'slagged' because of a specific attribute: a) country of birth, b) accent, c) religion, d) skin colour, and e) physical appearance. Scores are summed based on responses in the following categories: Never = 1, A few times a month = 2, A few times a week = 3, and Everyday = 4. A total score of five is the lowest, indicating no personal experience with ethnic bullying. A total score of 20 is the highest, indicating frequent and varied victimization on the basis of ethnicity. The mean score of the scale was 7.17, with SD = 2.84. A histogram of distributions is presented below.

Figure 16: Distributions of the Ethnic Bullying Scale



BUILDING VALIDITY OF THE ETHNIC BULLYING MEASURE

Following the reliability analysis, the psychometric evaluation of the ethnic bullying measure continued with validity testing. Criterion validity of the scale was tested against known group outcomes and previously validated measures of happiness, self-concept, and mental well-being.

The association between ethnic bullying and minority status

The ethnic bullying scale was designed to measure a child's exposure to ethnic bullying. Therefore, it was hypothesized that ethnic minority children would report higher levels of this specific type of bullying than multigenerational Irish children. An independent T test confirmed that minority children ($M = 7.21$, $SD = 2.96$) reported significantly higher levels of perceived discrimination than majority group children ($M = 6.00$, $SD = 1.96$; $t(194) = -2.37$, $p = .003$).

The association between ethnic bullying and school satisfaction

There is ample literature on the effects of bullying on school performance and academic achievement (Glew et al., 2005; Wong, 2009). Research also points to a negative association between victimization and overall school enjoyment and satisfaction (Glew et al., 2005; C. Wong, Eccles, J., Sameroff, E., 1999; You et al., 2008). Pearson's correlations investigated the relationship between ethnic bullying and school satisfaction in the current sample. Convergent with the international literature, there was a highly significant negative correlation between exposure to ethnic bullying and children's enjoyment of school ($r = -.210$, $n = 196$, $p = .003$).

The association between ethnic bullying and school ethnic composition

There is divergence in the literature regarding the relationship between school ethnic composition and ethnic bullying. In schools with a prominent majority population, it has been found that minority children are more likely to get picked on the basis ethnicity (Agirdag, Demanet, Van Houtte, & Van Avermaet, 2011; Devine, Kenny, & Macneela, 2008; Graham, 2006; Juvonen, Graham, & Schuster, 2003; Verkuyten & Thijs, 2001; Vervoort, Scholte, & Overbeek, 2010). However, schools with high minority populations are not immune to ethnic bullying. Rather, minority children are as likely to engage in racialized name calling and other forms of ethnic teasing as majority group children (Graham, Bellmore, Nishina, & Juvonen, 2009; Kitching, 2011; Spriggs, Iannotti, Nansel, & Haynie, 2007). Schools in the current sample had minority populations ranging from 38.2% to 99.2%. Based on recent qualitative research performed in Irish primary schools, it was hypothesized that children in schools with lower minority populations would report more experiences of ethnic bullying (Curry et al., 2011). Schools were divided into two categories: schools with a minority population of below 70% and schools with a minority population of higher than 70%. An independent sample T test did not support the hypothesis, finding that children in schools with high minority populations ($n = 125$, $M = 7.22$, $SD = 3.12$) reported more ethnic bullying than children in 'mixed' schools ($n = 71$, $M = 6.56$, $SD = 2.21$). However, there was no 'significant' difference between self-reported ethnic victimization in 'cluster' schools and mixed schools ($t(194) = -1.54$, $p = .118$).

The association between ethnic bullying and perceived popularity

Victims of bullying can struggle to form meaningful bonds with their peers. Research has shown that victims are often more submissive, withdrawn, and less sociable than their classmates (Perren & Alsaker, 2006; You et al., 2008). They are often ranked less popular on sociometric measures and have fewer playmates at school (Boulton & Smith, 1994; Pellegrini, Bartini, & Brooks, 1999; Perren & Alsaker, 2006). Therefore, it was hypothesized that victims of ethnic bullying would have lower levels of self-perceived popularity as determined by the Piers Harris popularity subscale. Pearson's correlations investigated the relationship and confirmed a significant negative association between exposure to ethnic bullying and popularity ($r = -.36$, $p = .001$).

The association between ethnic bullying and the Olweus Bully Victim Questionnaire

The Olweus Bully Victim Questionnaire is a cornerstone measure of school bullying behaviour (Olweus, 1986). It has been validated for use in studies across the world, including in the local context (Moran et al., 1993; O'Moore & Minton, 2005; Rigby, 2005). The OBVQ was included in

the current study to serve as a concurrent validation measure for the new measures of ethnic bullying. Pearson's correlations investigated the association between the new measure of ethnic bullying and the OBVQ. There was a strong, significant correlation between the new measure and the victim scale from the Olweus Bully Victim Questionnaire, building criterion validity for the new measure ($r = .392, n = 196, p < .001$). While strongly correlated, the relationship was not as high as expected. Possible reasons for this are discussed in Chapter Seven.

The association between ethnic bullying and perceived discrimination

As described earlier, the ethnic bullying measure and the perceived discrimination measure took different but equally important approaches to the examination of problematic inter-ethnic relations. The perceived discrimination items were holistic in their content, including a list of ethnic characteristics linked to different experiences of discrimination. The ethnic bullying measure took a different approach. Each item featured the same behaviour (getting picked on) but only one ethnic characteristic. Despite the difference in approach, it was hypothesized that the two measures would be correlated as they both assess a dimension of ethnic discrimination. Pearson's correlations investigated the association between the new measure of ethnic bullying and the new measure of perceived discrimination. As predicted, there was a very strong, significant correlation between the two new measures ($r = .626, n = 196, p < .001$). This further builds construct validity of the new measures and also reinforces the content validity of both scales. The high correlation suggests that they are both tapping into a similar construct, namely the experience of maltreatment on the basis of ethnicity.

The association between happiness, self-concept, and ethnic bullying

The harmful effects of peer victimization are widely reported (Dukes, Stein, & Zane, 2009; Esbensen & Carson, 2009; Kaltiala-Heino et al., 1999; Nesdale & Scarlett, 2004). Repeated exposure to aggressive peer behaviour may have serious consequences for a child's self-esteem, social adjustment, and overall mental well-being (OrsquoMoore & Kirkham, 2001; Vieno, Santinello, Lenzi, Baldassari, & Mirandola, 2009; C. A. Wong, Eccles, & Sameroff, 2003). It was hypothesized that ethnic victimization would have a negative association with happiness and self-concept. Pearson's correlations confirmed a strong, negative relationship between exposure to ethnic bullying and happiness ($r = -.23, p = .001$) and self-concept ($r = -.35, p < .001$). This finding converges with international literature emphasizing the negative effect that victimization can have on a child's adjustment and emotional well-being.

The association between ethnic bullying and mental health outcomes

The association between victimization and problematic mental health outcomes is also widely established in the literature. However, there is less focus on the relationship between mental health outcomes and ethnic bullying specifically. As previously discussed, the relationship between perceived discrimination and mental health outcomes in children is beginning to gain attention in the literature (Coker et al., 2009; Pachter & Coll, 2009; Priest et al., 2013). It is hypothesized that ethnic bullying will be associated with the same problematic mental health outcomes as perceived discrimination: depressive symptoms and anxiety. Pearson's correlations performed on the data confirmed these hypotheses, indicating a strong negative relationship with freedom from anxiety ($r = -.35, p < .001$) and a strong positive relationship with depressive symptoms ($r = .34 p < .001$).

Overall, the ethnic bullying scale performed as predicted when tested against convergent measures, established outcome measures, and known group outcomes. The implications of these preliminary findings are discussed in Chapter 7.

6.5 - MEASURING OBSERVED ETHNIC BULLYING

The fourth part of this chapter continues with the psychometric testing of the new measures of problematic inter-ethnic relations. The final measure assesses 'observed ethnic bullying' by asking children about how often they witness others being picked on on the basis of ethnicity. As with the previous measures, reliability tests are presented first, followed by testing of criterion and convergent validity. Five items assessed the frequency with which children observed ethnic bullying behaviour at school. The items asked how often participants saw other children getting picked on because of a specific ethnic attribute: a) birth country, b) accent, c) religion, d) skin colour, and e) physical appearance.

BUILDING A MEASURE OF OBSERVED ETHNIC BULLYING

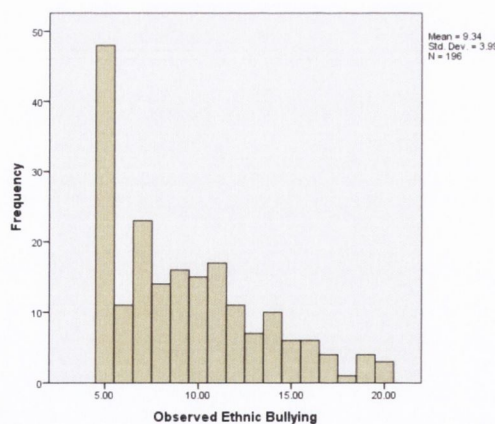
Testing for unidimensionality of the new measure began by calculating Loevinger's scalability coefficients for all five items (H_i coefficients) and for the total scale (H coefficients). Table 29 presents the coefficients for the items, all of which satisfied the unidimensionality assumption with H_i ranging from 0.45 to .54. Item scalability and total score coefficients were also extracted. As a scale, the items displayed strong unidimensionality based on the H coefficient, with a total score of 0.50 (Loevinger, 1948).

Table 29: Unidimensionality of Observed Ethnic Bullying Items

Bullying Item	Mean	Hi
Picked on because of where they born?	1.92	0.47
Picked on because of their accent?	1.89	0.48
Picked on because of their religion?	1.66	0.54
Picked on because of their skin colour?	1.91	0.52
Picked on because of how they look?	1.95	0.45

Additional reliability tests were conducted to further evaluate the consistency of the scale. Cronbach's Alpha (0.81), Guttman's Lambda 2 (0.82), and Rho coefficients (0.82) all further confirmed that the five items create strong, consistent scale. Total scores for 'observed ethnic bullying' were calculated by summing responses in the following categories: 1 = Never, 2 = About once a month, 3 = About once a week, and 4 = Every day. The lowest possible score is 5, indicating that the child has never observed ethnic bullying at school. The highest score is 20, indicating that the child observes a wide range of ethnic bullying behaviour daily. The mean score of the scale was 9.34, SD = 3.39. The distribution for the scale is presented below.

Figure 17: Distributions of the 'Observed Ethnic Bullying Scale'



BUILDING VALIDITY OF THE OBSERVED ETHNIC BULLYING MEASURE

The association between observed ethnic bullying and ethnic bullying

The ethnic bullying scale measured children's personal experience with victimization on the basis of ethnicity. The ethnic school climate scale measures a child's perception of ethnic bullying on a school level. Therefore, it was hypothesized that there would be a positive correlation between the two scales, as they both tap into school-based ethnic bullying. Pearson's

correlations performed on the data confirmed this hypothesis, indicating a strong positive association between self-reported ethnic victimization and observed ethnic harassment ($r = .30$, $p < .001$).

The association between observed ethnic bullying and the Olweus Bully Victim Questionnaire

The OBVQ was included as an outcome measure to test against the new measures of ethnic bullying. The OBVQ includes two subscales: one that measures victimization and one that measures bullying others. It was hypothesized that the ethnic school climate measure would be positively correlated with these two scales of bullying behaviour. Pearson's correlations were performed to assess the association between factors. The ethnic school climate scale was positively correlated with both OBVQ subscales, though the correlation was only significant for the 'bullying others' variable ($r = .26$, $p = .000$).

Overall, the observed ethnic bullying scale performed as predicted when tested against known group outcomes and an established convergent scale. The implications of these preliminary findings are discussed in Chapter Seven.

6.6 - FURTHER VALIDATING THE MEASURES: QUALITATIVE FINDINGS

Up until this point, the evaluation of the new measures of problematic inter-ethnic relations has been quantitative in nature. Construct validity was built through the confirmation of predicted underlying traits through a confirmatory factor analysis. Criterion validity was built by testing predicted group performances against findings from the literature and a widely used, internationally validated measure of bullying behaviour. Concurrent validity was built through testing the associations between the new scales and outcome measures of well-being and mental health. Thus, the perceived discrimination scale, the ethnic bullying scale, and the ethnic school climate scale have proven to be broad, cohesive, and accurate measures of key elements of problematic inter-ethnic relations among children.

Initial findings from the validation testing demonstrated the presence of some problematic inter-ethnic relations in schools including ethnic bullying, racialized name calling, and feelings of perceived discrimination. Frequent victimization was not widely reported, though 59.1% of minority children experienced at least one incident of ethnic bullying and 71.7% had felt discriminated against at some stage. Contrasted with multigenerational Irish children's reports of ethnic bullying and feelings of perceived discrimination (27% and 24.3% respectively), the frequencies demonstrate a sharp contrast between majority and minority groups.

The final section of this chapter aims to provide context to the descriptive quantitative findings and the outcome of the quantitative validation of the scales through the use of qualitative data. For the purpose of this exercise, only qualitative data pertaining to problematic inter-ethnic relations will be discussed. The aim of this analysis is to provide a more rounded picture of the nature of ethnic harassment and perceived discrimination among children in the sample. As with the previous chapter, the qualitative findings will be presented, followed by a list of ways in which they dovetailed with preliminary quantitative findings from the descriptive summaries and validation testing.

Bullying or aggressive behaviour was found in all three pre-test schools. Concurrent with international literature, the nature of the aggressive behaviour was different for boys and girls (Garandean et al., 2010; Minton, 2010; Smith et al., 2002). On the whole, girls were more likely to engage in exclusionary or verbal aggression, while boys were more likely to engage in physical and verbal aggression.

The boys, they mess around but sometimes they fight. But the girls, we don't hit each other or things like that. They might start saying things about others but they wouldn't fight.

---R201, multigenerational Irish girl, third class

Interviewer: Do you ever see other kids get picked on?

Malik: Kenny. Cillian likes hitting him and calling him names and stuff like that.

---R104, first generation Nigerian boy, fourth class

Lina: They have some kind of club and they are always playing it outside and they are only girls and they tricked me lots of times. When I was in second class and in that year, I wasn't friends with them and all that and I was friends with Beth and um, and all the other people – they're like the *cool* ones. And like, I was with them that time and then they just only wanted to act all *cool* and all that and then I didn't want to act cool cause they, they're always messing and saying 'haha, you're not *cool* like us' and all that.

Interviewer: OK. So who's all in the club? How many people are in the club?

Lina: Um nearly all the girls in the class. Only a few of us are left out.

---R106, first generation Chinese girl, fourth class

Interviewer: Why do you call them mean names?

Alex: Because they really annoy me and it just makes me angry and I start doing it because I'm actually the popular-est girl in my class.

---R105, second generation Nigerian girl, fourth class

Problematic inter-ethnic relations, specifically, were also present in all three pre-test schools. In the quantitative validation, it was found that there was no significant difference in the frequency of ethnic bullying based on school ethnic composition. The qualitative data reinforced this finding, and also provided additional, contextual details on how the nature of ethnic bullying differed in minority 'cluster' schools and mixed schools.

In pre-test school one, over 98% of the children were from minority backgrounds. Classroom teachers and the principal had adopted the DES strategy for rhetorically promoting multiculturalism and inclusion. Projects emphasizing the 'diversity' of the student body were built into the curriculum. Projects highlighting countries of origin, world geography, and cultural traditions of specific countries were customary. Children often referenced these projects during the interviews.

Yeah like this year, like we're doing a project and you can choose any country you want. So some people did Romania, Spain, Nigeria, Thailand, all those countries in the world. Like it's in our place, it's a place project. And it just tells you all about the culture in that country and stuff like that. The food and stuff.

---R108, second generation Nigerian girl, fourth class

Similarly, the physical environment of the school reinforced the diversity of its student body. Below is an excerpt from notes taken on my first day of field work in school one:

The building is large, two stories, with long, colourful hallways adorned with children's artwork. One hallway is covered in flags from around the world with pictures of children corresponding to the flag. "Celebrate Diversity" is written in bubble letters above the flags. Another wall has pictures of children wearing "traditional African clothes". A notice for parents hangs on a bulletin board by the front door, encouraging them to bring in "native recipes" for a school-wide cookbook. One wall is dedicated to the school's recent acquisition of a 'yellow flag'.³⁵ I am surprised by the level of knowledge that children have about their classmates' backgrounds. They rattle off nationalities like

³⁵ The yellow flag programme promotes inclusion and celebrates diversity in Irish schools by providing diversity training for staff members, setting up a school-wide diversity committee, establishing a racism policy, and incorporating diversity into the school curriculum.

hair colours. The thing that stands out the most is the complete absence of ‘diverse’ staff. All teachers and administrators are white, female, and classically “Irish”.

---FNotes, school 1

As touched upon in the above excerpt, many children at this school had a sophisticated understanding of their peers ethnic backgrounds and nationalities. Often, children would classify their peers by ethnic background when telling a story or describing daily activities:

Interviewer: Who do you sit with in class?

Sam: Well there’s this girl, she’s born in Ireland but she also speaks Romanian because her parents are Romanian. And this Polish girl that sits on the other side. Then Jake is from across from us, he’s from Africa.

---R105, first generation Romanian boy, fourth class

This child’s ability and readiness to classify his classmates by ethnic background demonstrates the significance that it holds in the school. The school’s open discourse about ethnicity created an environment that was upfront and transparent with regards to the diverse makeup of the school. It promoted children’s understanding of different cultures and rhetorically provided them with an inclusive and welcoming schooling environment. On the other hand, the seemingly constant emphasis on ethnicity in a school of exclusively first and second generation migrant children (and exclusively multigenerational Irish teachers and staff) seemed to reinforce the children’s ‘minority’ status in society at large. This was further exacerbated by the fact that the school was physically located just down the road from another primary school serving predominately multigenerational Irish children. It was common to see the majority group children walking to and from their neighbouring school when I was conducting fieldwork. Moreover, the reinforcement of diversity and ethnic background in school one played a salient role in children’s personal and social identity formation. As a result, children in this school had a relatively heightened awareness of ethnicity (of themselves and their peers), when compared with children in the more ‘mixed’ pre-test schools.

However, this sophisticated understanding of birth countries and cultural traditions did not prevent children at the cluster school from engaging in ethnic bullying. On the contrary, children in this school were often overt in their description of racialized name calling and ethnic stereotyping:

The kid that used to bully me – he calls some people “burgers” and “triple burger” and stuff like that.

---R104, first generation Nigerian boy, fourth class

Kyle: Sam used to slag me and be a racist. But now he stopped.

Interviewer: Why did he do that?

Kyle: Because of the colour of my skin.

Interviewer: And when he would do that, what would he say?

Kyle: Just that I’m black and ugly.

---R107, first generation Nigerian boy, fourth class

There’s this boy and people in 6th class keep picking on him and like, this one day he got a glass and he was going to throw it at the sixth class boys but he put it down because somebody saw him. And like, he’s like – he doesn’t speak English. He’s Polish so he doesn’t know all about English. So he can’t protect himself and stuff.

---R108, first generation Nigerian girl, fourth class

Some of us from 4th class and 5th class – we’re in big trouble because there’s this boy – he’s Romanian –and another boy from Latvia I think – he was being racist to us. He started calling us black bananas and then one of us called him ‘gypsy’ and then we all started fighting.

---R105, second generation Nigerian girl, fourth class

Interviewer: Do you ever see people getting picked on because of the colour of their skin?

Juliana: Yeah, loads of times. Every day.

---R109, second generation Brazilian girl, fourth class

The principal of the school described an incident that occurred with some of her third class students:

We had a situation last week. One boy, a Nigerian boy, stole the other boy – the traveller boy’s – pencil case and wrote ‘knacker’ on it. I mean! Now we’ve got Nigerian kids picking on traveller kids for being travellers. There’s no precedent.

---P01

These examples serve as a valuable reminder that ethnic bullying is not simply a majority vs. minority issue. At the cluster school, there were virtually no 'majority group' students. However, racialized name calling and ethnic stereotyping between minority groups was widely reported and often discussed candidly. The open and frank discussions of ethnic bullying and racism at the cluster school could be due, in part, to the heightened awareness of ethnicity resulting from the segregated nature of the school and its curricular emphasis on 'highlighting diversity'. It has been argued that children who have a higher cognitive awareness of race and ethnicity are more able to identify discriminatory behaviours (Spears Brown & Bigler, 2005). As a result, children could use their heightened awareness maliciously as a weapon against peers, or constructively as a tool for identifying and combating problematic inter-ethnic behaviour.

Even in their straightforward and often nonchalant discussion of ethnic name-calling, many children described the incidents as "racist", demonstrating an awareness of the problematic nature of the behaviour. This could be due, in part, to the class's recent exposure to an anti-racism intervention programme for primary school children. One boy describes the program influenced his aggressor to change his behaviour:

Interview: Why do you think he stopped (bullying him because of his skin colour)?

Malik: Well, Cillian – we watched this racism movie and then Cillian thought about what he did and he was actually crying.

Interviewer: So the movie made him think, huh? Did you watch that in class?

Malik: Yeah.

Interviewer: What was it about?

Malik: Showing racism the red card.

---R103, second generation Nigerian boy, fourth class

In the mixed pre-test schools, problematic inter-ethnic relations were present but much more subtle than in the cluster school. In these, there was a clear social 'separateness' that occurred between multigenerational Irish and minority children but typically no explicit mention of ethnicity. The exclusionary nature of some groups became evident when talking with children about the structure of social circles.

Interviewer: Is there anyone who plays alone at yard time?

Jon: Mostly that – mostly Ahmed (first generation Libyan boy). We don't like playing with him because he's so annoying. So we don't – we don't play with him that much.

Interviewer: OK. And what's annoying about him?

Jon: Cause every time – he keeps on standing where the den is so people can't get there cause that's not really allowed – he doesn't really speak English and he doesn't understand the rules.

---R303, multigenerational Irish boy, second class

Interviewer: And who do you like to play with at school?

Nijea: Emily [minority group girl]. She isn't in my class, she's in 2nd.

Interviewer: Oh ok. Is there anyone from your class that you like to play with at yard?

Nijea: (pause) I play with Abbey sometimes.

Interviewer: OK. Just sometimes?

Nijea: Because sometimes she has to play with someone else. Like she has to play with Brida, Anna, and that stuff [multigenerational Irish girls].

---R207, first generation Nigerian girl, third class

Interviewer: Is there ever anyone in class who's mean to other kids in class?

Sofia: Well sometimes Sarah and Laura are mean to me. And sometimes we talk to Caroline, me and Fatima talk to Caroline and we say 'you're not playing with us, you're playing only with Sarah and Laura and Tara and Aoife and all the other girls' (multigenerational Irish girls).

Interviewer: And what does she say?

Sofia: And Caroline said "but they're my best friends". And that's all.

Interviewer: So how are the other girls mean to you sometimes?

Sofia: Sometimes they're being mean like I'm saying "Caroline, do you want to play with me" and Sarah says "don't play with HER".

---R309, first generation Ukranian girl, second class

While there was no outright mention of ethnicity in the previous examples, the children were describing playmate selection drawn along majority / minority lines. There were a few examples of explicit ethnic bullying in the mixed schools, as well, though the discussion of these incidents was notably less candid than at the cluster school.

Interviewer: Do you think you've ever been picked on because of where you were born?

Fatima: Yeah, well, because I go to Mosque

Interviewer: What do they say about you going to Mosque?

Fatima: They just say 'Allah, Allah, Allah' like that.

---R306, first generation Libyan girl, second class

Interviewer: Do you think you've been picked on because of the color of your skin?

Najea: Yeah.

Interviewer: Ok. Do you mind telling me a little bit more about that?

Najea: I don't know. I just know I have but I can't remember who did it.

---R207, first generation Nigerian girl, third class

My friend gets picked on just because he's brown. He's in this class but he never tells.

---R209, multigenerational Irish boy, third class

This hesitancy to discuss problematic peer relations was echoed by several participants.

Interviewer: (after describing being excluded on the playground) Do you ever tell anyone about it?

Sofia: No.

Interviewer: Why not?

Sofia: Well, I guess I just want to solve it on my own, or something.

---R309, first generation Ukrainian girl, second class

I don't ever talk about it because then everyone will think I'm a tell-taler.

---R108, second generation Nigerian girl, fourth class

While differences were observed in the nature of problematic inter-ethnic relations between the cluster school and mixed schools, there was little difference with regards to children's perceptions of discrimination. Minority children from all schools described feelings of difference on the basis of ethnicity. For some, skin colour was a defining element of 'difference':

Interviewer: And have you ever felt embarrassed by the color of your skin?

Nijea: Yeah.

Interviewer: And would you say many times or sometimes?

Nijea: Many times.

---R207, first generation Nigerian girl, third class.

Mostly I just hate the sun because I want to be a normal colour skin and I'm the whitest between my mom and my sister.

---R306, first generation Libyan girl, second class

Interviewer: Have you ever felt embarrassed by the colour of your skin or your accent?

Cheryl: Um not really because in this school, there's loads of black people, less white people.

---R108, second generation Nigerian girl, fourth class

For others, country of origin, cultural differences, or religion was a source of embarrassment, feelings of 'otherness' or perceived difference.

I'm shy about my parents. They kind of speak funny because of their accent.

---R205, first generation Nigerian girl, third class

I had two Spanish teachers and my teacher said 'did you tell about your parents, where your parents are from?' and I said 'no' and then after my teacher said 'do you want to tell them?' and I said 'ok' because I was kind of scared to say no in front of the teacher.

They're the boss and you might just get in trouble. So I told them and then I got all red.

---R109, second generation Brazilian girl, fourth class

Interviewer: Does your family ever go to church or to mosque?

Alex: Yeah

Interviewer: Yeah? And what's your religion?

Alex: My religion? (laughs). It's kind of weird. I don't know. It's weird.

Interviewer: OK

Alex: Eh, well.... We believe in ghosts. There's some superstitions. And in Nigeria there's this thing called Juju and they can kill you but there's some good ones and bad ones. But I don't believe it.

---R305, second generation Nigerian girl, fourth class

I went to my friend's house and there were loads of people there because we were going to practice and then I said "who's that?" and they said "don't you know? That's One Direction!" and I said "who's One Direction?" and they all started laughing and telling everyone that 'she doesn't know One Direction'³⁶.

---R207, first generation Nigerian girl, third class

No multigenerational Irish children expressed overtly racist attitudes in their interviews. Some did, however, reinforce birth country, language ability, and skin colour as signifiers of difference, strangeness, or 'otherness' in minority peers and the general population.

³⁶ 'One Direction' is an English-Irish boy pop band. They are currently extremely popular with teen and pre-teen audiences.

Interviewer: And do you know where other people in the class are from?

Laura: Well, most of us are from Ireland. This boy, it's weird because he has kinda brown skin and he's from – I forget the country – um, can't remember. It's weird.

---R304, multigenerational Irish girl, second class

Rian: There's a foreigner who lives against my friend and my friends tried to hit his window with rocks but he comes out with a wooden spoon. Cause they think that's funny.

Interviewer: They think it's funny to throw stones?

Rian: Yeah and sticks at his window.

Interviewer: And who lives there?

Rian: A foreigner. He yells and they think it's funny so they keep doing it.

Interviewer: Why do they think it's funny?

Rian: I don't know. Cause he yells funny.

---R209, multigenerational Irish boy, third class

Ciara: I used to play with these guys but they kept robbing my stuff so I didn't really want to play with them anymore. There's a big bunch of them and they're Arabic. And there's like 10 boys and 8 girls. They robbed – my slide was broken and they fixed it and then they didn't give it back.

Interviewer: Did you say anything?

Ciara: Well I didn't cause they kind of don't speak my language.

Interviewer: Oh, they don't speak English?

Ciara: Not properly.

---R305, multigenerational Irish girl, second class

Some majority children also expressed stereotypical views about migrant and minority children, particularly with regards to their country of origin. The most commonly expressed stereotypes were ones that are also prominent within larger Irish society: that most migrants come from war-torn, impoverished countries. While children were not being malicious with their descriptions, their views signified a cognitive classification of minority children as 'different' from multigenerational Irish children.

Interviewer: Why do you think people want to move to Ireland from other countries?

Laura: Cause they're poor.

Interviewer: Any other reasons?

Laura: Because people don't give them much food and they want to survive so they come to our country and they get more food in their house and then they won't be poor anymore. And they get loads of food and loads of drinks and then they will survive.

---R303, multigenerational Irish girl, second class

Interviewer: Why do you think people want to move to Ireland from different countries?

Ciara: I think because there's no explosions or anything

---R305, multigenerational Irish girl, second class

I think because they're hungry and they want to live in a house and we don't have twisters here, just little twisters. And we have cars and stuff.

---R201, multigenerational Irish girl, third class

6.7 - CONCLUSION

This chapter described the scaling and validation procedures for three new measures of problematic inter-ethnic relations. Three reliable and robustly valid scales were produced: the ethnic aggression scale, the observed ethnic aggression scale, and the perceived discrimination scale. Qualitative data from the pre-test was presented to provide contextual information and to triangulate the preliminary descriptive and validation quantitative findings. The qualitative data supplemented the quantitative data in making the following points:

- Episodes of ethnic harassment occurred at all schools.
- At the 'cluster' school, ethnic harassment was more explicit than at mixed schools. Children frequently described incidents of overt racialized name calling, drawing upon notions of difference occurring in the exclusively minority school.
- Feelings of perceived difference and discrimination were present among many minority students.
- Feelings of perceived discrimination were not reserved for minority students. Some majority group children also described feeling discriminated against.
- Feelings of difference were driven by skin colour, religion, language, and birth country.

These preliminary qualitative findings serve to validate the new measures, as they reinforce preliminary quantitative findings produced by the new scales. These findings also open the

conversation for future uses of the new, valid measures. The final chapter discusses the strengths and shortcomings of these instruments and proposes possible future applications for both practitioners and researchers.

CHAPTER 7: REFLECTIONS AND RECOMMENDATIONS

The main objective of the current body of research was to *design* and *validate* a broad and coherent, child-centred quantitative measure of inter-ethnic relations. Specifically, it sought to construct a measure that addressed certain fundamental problems in the existing child-based, quantitative inter-ethnic instruments. First, it aimed to build a measure that was thoroughly *child-centred* in its formulation, its content, and its presentation. Next, it sought to build a measure that was both *broad and coherent*, capturing aspects of children's inter-ethnic relations from various layers of their ecological environment. Acknowledging the necessity for quantitative measures to adhere to strict psychometric standards, a highly detailed evaluation of the measure's reliability and validity was conducted. Often, these critical components of quantitative research are brushed over when in fact, they are fundamental to the legitimacy of any quantitative study, particularly when conducting child-based research. Thus, this project relied upon non-parametric item response theory scaling analyses to assess the *reliability* and *sensitivity* of the current measure. A battery of *robust validation* techniques and tests were built into the design of the project, ensuring a multilevel evaluation of the new measure's ability to accurately assess what it claims to assess. Finally, the project aimed to design a measure that is appropriate and valid for use with majority and minority group children in *new migrant communities*, an area that is highly relevant in the current international climate but generally under-represented in existing, child-based quantitative inter-ethnic relations research. The measure was then assessed in an area of demonstrated need: *the association between inter-ethnic relations and mental health*.

This chapter reflects upon the ways in which the project achieved its stated aims, and the areas where further research and work is required. It highlights the strengths of the new measures from a practical standpoint, and also draws attention to its limitations. It places the preliminary findings in the context of the national and international literature on children's inter-ethnic relations. As the aim of the project was measurement design and evaluation, quantitative testing focused on scaling and validation. However, validation testing generated noteworthy preliminary findings about the nature of inter-ethnic relations in the pilot schools. It is important to emphasize that these findings are not generalizable nor representative, as the study relied upon a purpose, convenient sampling strategy. Nevertheless, it is valuable to discuss the patterns that emerged with a focus on the suggestions of this preliminary data. Finally, recommendations are made for future applications of the new measure and ways in which quantitative research on children's inter-ethnic relations can be used to improve the quality of children's social relations in school and in the broader community.

7.1 - A NEW MEASURE OF INTER-ETHNIC RELATIONS AMONG CHILDREN

This section reflects upon the ways in which the project achieved its stated aims and also discusses its shortcomings. Preliminary findings on the association between inter-ethnic relations and mental health are discussed further in the chapter. Here the focus remains specifically on how the project designed and tested a broad and coherent, reliable and sensitive, child-centred measure of inter-ethnic relations valid for use in new migrant communities.

BROAD AND COHERENT

Chapter two discussed two prevalent yet flawed methods of measurement in the field of inter-ethnic relations research: the sole measure approach and the many measures approach. The sole measure approach places substantial weight on one item or measure and then generalizes the outcome into an indicator of inter-ethnic relations (e.g. (Feddes, Noack, & Rutland, 2009b; Kiesner et al., 2003; Wagner et al., 2008)). The many measures approach contests the constrictive nature of the sole measure approach by adopting a broad and inclusive strategy to measurement selection. However, too often the selection of measures is ad hoc and no justification is provided. The reader is left questioning the motivation behind measurement inclusion and also, the extent to which the selected scales actually quantify the construct. This study aimed to produce a coherent and comprehensive set of measures that was both broad and cohesive, organized around a structure that accounts for the realities of the child's world. Bronfenbrenner's ecological model of the child provided a holistic and coherent structure around which measures were designed.

The final measure is broad and coherent both in content and applicability. It includes scales and items that assess many dimensions of inter-ethnic relations in a variety of contexts. The contact scales can reveal positive inter-ethnic relations, as well as 'separateness' that often occurs between majority and minority group children (Aboud et al., 2003; Curry et al., 2011; Griffiths & Nesdale, 2006). They also capture levels of contact both in and out of school time. Multi-ethnic schools provide an environment where children from diverse backgrounds form social relationships. Children may have close inter-ethnic contact during school hours but very little contact outside of school. These scales consider the unconventional types of inter-ethnic friendships that may develop within the framework of the school rather than relying upon a single indicator (i.e. who is your best friend) as a determinate of inter-ethnic friendship.

The ethnic bullying scales measure personal experience with ethnic bullying, as well as observed ethnic bullying on the school level. The items cover a range of potential targets that are applicable for first generation migrants, as well as minority children more broadly.

Questions such as 'have you ever been picked on because of where you born' and 'have you ever been picked on because of your accent' tap into a type of harassment often reserved for first generation migrant children. Other ethnic bullying items such as 'have you ever been picked on because of the colour of your skin' or 'have you ever been picked on because of your religion' can capture forms of ethnic discrimination that could be experienced by all minority children, regardless of generational status. In a review of bullying research, Hanish (2013) explicitly stated the need for new studies to explore the unique situation of migrant children with regards to ethnic bullying. As migrants "may be at a power disadvantage, particularly if they look or dress differently or are associated with groups about which negative attitudes are common", their susceptibility to ethnic harassment may be distinct when compared with multigenerational minority populations (Hanish et al., 2013). With regards to applicability, the items from the ethnic bullying measures can be treated as individual indicators or collectively as a scale. For example, a principal could descriptively examine the types of ethnic bullying occurring at the school level while a psychologist could use the scale in a model examining moderating effects on bullying related health outcomes. Accordingly, the flexibility of the measure broadens its utility for both researchers and practitioners.

The new measure also extends beyond the school to explore children's out of school time contact and neighbourhood peer interaction. As qualitative research has suggested that migrant children and multigenerational children have distinct out-of-school practices (Curry et al., 2011), this dimension was included to allow quantitative inspection of the premise. The contact measures include items on out of school play partners. The locality based questions measure the frequency with which children play with friends in their area and the number of friends that they have. While the neighbourhood-specific items do capture certain elements of children's out-of-school peer interactions, they do not directly measure locality-based inter-ethnic contact. This is one shortcoming of the new measure. While out-of-school inter-ethnic relations are addressed on the contact scale, including an additional measure of neighbourhood ethnic composition could have provided a broader depiction of out of school time inter-ethnic contact. However, as explained in detail in chapter four, there were serious cognitive processing and wording issues surrounding the proposed ethnic composition response categories. Also, it was found that children were knowledgeable with regards to their friends' and classmates' national backgrounds but were less confident about people further removed in their ecological framework. Therefore, attempting to capture neighbourhood ethnic composition in the current measure would have likely produced invalid findings. The contact scales, however, capture key dimensions of out of school inter-ethnic interaction and are capable of exploring alternative patterns of ethnic friendships on a broad level.

The coherent structure of the new measure is marked by the logical arrangement of variables within the framework of the ecological model. Bronfenbrenner’s model posits that children are nested within a variety of environmental factors, like a set of Russian dolls. The immediate layer is the ‘microsystem’ and includes the home, the classroom, and other daily influences in child’s life. The ‘exosystem’ is the next layer out, and includes factors that are removed from the child’s daily interactions but still influential in a child’s life such as neighbourhoods, parental employment, and extended family. The ‘macrosystem’ encases all of the aforementioned layers, as it is the cultural and societal context within which all systems function. Relying on this model as a framework, items and scales were created to measure various contextual influences on children’s inter-ethnic relations. Items included in the final measure address elements of all four layers and are arranged in the following way:

Table 30: Items from the pilot measure arranged by the Ecological Model framework

Ecological layer	Corresponding items from the pilot measure
Individual (age, gender, ethnicity, religion)	‘About you and your family’ items
Microsystem (family, church, school, peers)	‘Questions about school’ items ‘Problems at school’ items ‘Who you spend time with’ items
Exosystem (neighbourhood, social services, wider community)	‘Who you spend time with’ items ‘The area where you live’ items
Macrosystem (attitudes and ideologies of the culture)	‘Being treated differently’ items

In creating a coherent structure for the new measure, the project aimed to increase the accessibility of the tool for practitioners and researchers. Later in the chapter, the benefits and potential uses of the measure for these groups are discussed in some detail.

CHILD CENTRED

Child-centeredness was a key aim of the project, both as an intended outcome of the measure but also with regards to how the research was conducted. The research achieved child-centeredness in three key respects: a) it adopted a child-centred philosophy throughout the life of the project, b) it consulted children directly in the design and implementation of the measure, and c) it constructed a quantitative tool that is widely interpretable, age-appropriate, concise, and child-friendly in its presentation and wording.

Designing a child-centred, quantitative measure presented many conceptual and methodological challenges. As discussed in chapter three, quantitative measures in and of themselves are often thought to be at odds with the fundamental theory of 'child-centeredness' as defined by the new sociology of childhood. A widespread paradigm shift over the past two decades has impacted the way that child-focused research is conducted (Christensen & James, 2008; Greene & Hill, 2005; Greene & Hogan, 2005), with a large emphasis currently being placed on listening to the 'child's voice' through participatory methods such as qualitative interviews, storytelling, or artistic exercises (Beazley, Bessell, Ennew, & Waterson, 2009; Bélanger & Connelly, 2007; Komulainen, 2007; Spyrou, 2011).

However, quantitative measures in and of themselves are not at odds with child-centeredness. Rather, the way in which quantitative measures are sometimes used with child populations can be considered 'non child-centred' (Hill, 2006; Pachter & Coll, 2009). In this vein, the quality of 'child-centeredness' could be compared with the psychometric quality of validity. Like validity, there is no 'threshold' after which a measure becomes child-centred. Rather, it is established throughout the life of a research project. It is assembled through a theoretical recognition of children as capable and autonomous 'beings', a willingness to actively include children in the research process, a commitment to the development and use of child-centred tools, and a desire to conduct research with children directly about their lives. It is not something that is purely dependent on methodologies. Rather, it is an all-encompassing research approach inclusive of many conceptual and practical elements.

This study adopted a mixed methods approach to designing a child-centred measure including cognitive interviews, behavioural observations, and quantitative survey piloting. Mixed methods approaches are considered good practice in the broad field of measurement design and are particularly suited to the construction of child-based tools (Thomas & O'Kane, 1998). In addition to providing a participatory channel for children to actively contribute to the research process, mixed methods also lead to a survey that is child-centred in wording and content. This ultimately improves the reliability and validity of the measure, and may also have a positive influence on overall response rates (Lightfoot & Sloper, 2003).

The qualitative pretesting of the current measure consisted of cognitive interviews with 35 children using an 'over-inclusive' pool of potential questions. Children provided insightful and valuable feedback on the wording, content, and presentation of these items. Their autonomy and ability to meaningfully engage in the research process was continually reinforced by their contributions. In fact, many children took a lively interest in 'talking through' their answers,

demonstrating a sophisticated level of cognitive awareness and a solid comprehension of the purpose of the interview.

The cognitive interviews were particularly beneficial in light of the demonstrated cultural disconnect between the adult's world and the child's world. Especially when conducting research on ethnicity, the mixed methods approach was "key to ensuring that resulting research [would] be valid across a diverse range of experiences, as well as sensitive to differences resulting from cultural or ethnic background" (Due et al., 2013). The risk of cultural disconnect was compounded by the fact that I was born and raised outside of Ireland. Thus, the possibility of contextual and language divides was further heightened. For example, many items on the initial pre-test asked children questions about their "neighbourhood". While this term is commonplace in my birth country, it became clear that it was not customary among Irish youth. The cognitive interviews shed light on these types of wording and content problems, allowing for items to be revised and ensuring interpretability across cultures and generations.

When revising items and constructing the pilot measure, the focus was on employing words and phrases that children themselves would use. For example, there was a high level of variability in children's understandings of the often employed term 'bullying' (Bieber, 2013; Guerin & Hennessy, 2002; Vaillancourt et al., 2008). Children generally were in consensus that bullying was 'wrong' but when asked for clarification, they often gave restrictive or misinformed examples of 'bullying' behaviour. As the definition of 'bullying' remains heavily debated among researchers, practitioners, and academics, this is not unexpected (Bieber, 2013; Menesini et al., 2002). Furthermore, studies have found that when children are provided with a definition of the word 'bullying' or repeatedly exposed to the word 'bully' on a survey, they report significantly less aggressive behaviour (Felix et al., 2011; Kert et al., 2010). Cognitive interviews revealed that children interpreted the phrase 'picking on' in the same way that 'bullying' is often intended. This included teasing, name calling, social exclusion, and in a few cases, physical aggression. Thus, the child-friendly phrase 'picking on' was used to capture instances of ethnic aggression in the new measure.

Once a 'child-centred' pilot measure had been constructed, it had to be administered properly in order to retain its child-centred quality. This involved a resolute commitment to the process of on-going consent and allowing children to 'have fun' with the research process. In quantitative research, recruiting a sufficient number of participants is necessary in order to conduct certain statistical analyses. The process of recruitment is commonly referred to as 'getting the numbers' and the difficulties associated with this practice are often under acknowledged (Lindsay, 2005). One major drawback of this mentality is the tendency to quantify participants, viewing them as

means to an end and compromising the human element in the name of data collection. When completing the current survey, some children bemoaned the length of the instrument or gave other signifiers that they were no longer interested in taking part after initially giving consent³⁷. In line with a child-centred administration, these children were told that they could stop the survey at any time without repercussion. While this ultimately resulted in a loss of data, it was crucial to preserving child-centeredness and ethical standards. It is worth noting, though, that only a few children opted out after starting the questionnaire. Even those who originally commented on the length became actively engaged after answering the first few questions. This pattern was detectable across all of the pilot schools, ultimately reflecting children's willingness to engage in the research process and their interest in providing information about their lives. On several occasions, I was asked if I could come back to "do another one". Of course, children relish a break from routine, particularly in the context of the school. However, the predominately positive reaction to the quantitative measure suggests that completing a survey can be gratifying for child participants, despite the rhetoric presented in some 'child-centred' literature.

Quantitative research methods provide a mechanism through which broad patterns of children's inter-ethnic relations can be identified and analysed. However, in order to capture those patterns accurately, it is necessary for the measure to be conceptually and fundamentally child-centred. Furthermore, administration must be handled in a way that is respectful of children's autonomy. Thus, it is argued that quantitative methods, in and of themselves, are not fundamentally at odds with child-centeredness. Rather, child-centeredness hinges on the way a methodology is developed, applied, and interpreted. If a survey is developmentally and culturally applicable, age-appropriate in wording and content, and administered with an on-going respect for children's autonomy, self-report quantitative measures can be every bit as 'child-centred' as other 'voice based' methodologies.

Thus, this study succeeded in the development of a child-centred measure of inter-ethnic relations. The items, content, and presentation were informed by a direct consultation with children in the target demographic. Children's autonomy was respected throughout the life of the project. The final measure is concise, age-appropriate, and culturally relevant. Furthermore, it has been proven valid with majority and minority group children in a new migrant context.

³⁷ The pilot survey was particularly lengthy because it was accompanied by the three validation measures.

SENSITIVE AND RELIABLE

Designing a measure that was broad, coherent, and child-centred responded to conceptual and methodological needs in the field of children's inter-ethnic relations. However, without thorough, concrete psychometric underpinnings, the measure would be irrelevant. Thus, this project also aimed to maintain very high standards of reliability and validity. Though often under-appreciated in scale construction and evaluation, the significance of these qualities cannot be understated (Furr, 2011).

In general terms, reliability is the extent to which scores consistently and uniformly capture a construct. Reliability is statistically centred, and typically established using Classical Test Theory methods (CTT). The most common CTT indicator of reliability is a Cronbach's Alpha coefficient, which provides a statistic reflecting the internal consistency of a set of items. However, establishing proper reliability extends beyond testing for internal consistency. Additional considerations such as unidimensionality and individual item performance should also be included in a thorough reliability investigation (Embretson & Reise, 2013).

This research aimed to build a sensitive and reliable measure by applying an item response theory approach to scale construction and item analyses. As discussed in detail in Chapter 2, IRT operates from a belief that a participant's response to a question is influenced by two factors: the individual's relationship to the construct being measured (i.e. perceived discrimination) as well as the qualities of the item itself. Just as items on a measure may differ in terms of difficulty, items may differ in terms of their ability to distinguish between respondents based on their trait level. This is referred to as an item's 'discriminability' or 'sensitivity' (Furr & Bacarach, 2008). It reflects an item's ability to distinguish between respondents with high levels of a latent trait from those with low levels.

The ability to examine each individual item's discriminability was instrumental in the construction of a reliable and sensitive measure of inter-ethnic relations. It highlighted items that were unable to distinguish between participants on the basis of the latent trait, leading to the removal of redundant or poorly performing questions. In attempting to design a child-centered quantitative measure, there was an ongoing effort to keep measures as concise as possible while retaining their psychometric standards (Morrow & Richards, 1996; Scott, 2000b). The sensitive approach to item selection enabled the realization of this aim. Furthermore, unidimensionality was directly and carefully investigated using non-parametric item response theory methods. Often in CTT based research, unidimensionality is assumed through a positive index of internal consistency (i.e. Cronbach's alpha). However, alpha is ultimately a reflection of internal consistency not unidimensionality or reliability (Furr, 2011).

A problem with relying solely on alpha is that there is a standardized cut-off for a 'reliable' scale which when obtained, many researchers take at face value and proceed with analyses. Often in social research, the psychometric qualities of a measure and the implications of weak reliability and validity are overlooked. CTT reliability tests such as Cronbach's Alpha do not provide an opportunity for in-depth item evaluation (Embretson & Reise, 2013). Furthermore, alpha is affected by scale length, with longer scales ultimately having higher 'alpha' scores and thus, being interpreted as more 'reliable' than shorter scales (Furr, 2011). NIRT provided an avenue for sensitive scale construction uninfluenced by the total number of included items. Thus, short, sensitive and reliable scales could be created.

Reliability of the Contact Scales

The Contact with Children Born in Ireland scale and the Contact with Migrant Children scale were designed to fit a hierarchical Mokken model, increasing in intensity from 'common' forms of contact to more 'intimate' forms of contact with a) children born in Ireland and b) migrant children. Both scales satisfied the requirements for the strong, Mokken double monotonicity model.

The 'Contact with Children Born in Ireland' scale met the standards for a very strong scale ($H=0.55$), with all six original items forming a unidimensional, reliable hierarchy (H_i ranging from 0.46 to 0.59). The Contact with Migrant Children scale also formed a very strong hierarchical scale ($H=0.62$), with all six original items demonstrating strong unidimensionality (H_i ranging from 0.55 to 0.62). The inclusion of all original items on these scales, their solid unidimensionality, and their clearly established hierarchy reflect a successful measurement design process. The items performed as they were intended to perform, due in large part to omission of redundant and problematic items following the pretesting phase.

The hierarchical nature of the two contact scales has implications for the interpretation of test scores. Theoretically, the test score (ranging from 5-30) should represent the level of the latent trait present and also indicate specific aspects of that latent trait. With the 'Contact with Migrant Children' scale, for example, a score of 5 means that a child has no contact with migrant children either in or out of school. A score of 30 means that a child engages in daily out-of-school contact with a migrant child (i.e. plays over at their house) and also endorsed every other lower item on the hierarchy. Therefore, in theory, a mid-range score of 15 should be indicative of regular school-time contact but little out-of-school contact. However, item response processes are not perfect and neither are scales. Despite the very strong psychometric properties established during the Mokken analyses, there is always a possibility that children will endorse items out of

hierarchical order to some extent. Therefore, scores should be interpreted with the inevitability of human and measurement error in mind.

Reliability of the Problematic Inter-ethnic Relations Measures

The problematic inter-ethnic relations scales were not designed to fit a hierarchical Mokken model. Rather, they aimed to cover a wide-range of potential ethnic bullying targets and occurrences of discrimination. However, as previously explained, all scales can benefit from an in-depth exploration of item discriminability and unidimensionality. Thus, the ethnic bullying scale, the observed ethnic bullying scale, and the perceived discrimination scale all were tested for unidimensionality and sensitivity using Mokken scaling methods.

The five item ethnic bullying scale demonstrated moderate unidimensionality ($H=0.43$), with individual items H 's ranging from 0.33 to 0.52. One particular item (have you ever been picked on because of your accent) did not fit the scale as well as the others. Removing this item would have increased the overall strength of the scale from moderate to strong, as $H = 0.50$ without the problematic item. While misfitting with the current sample, the 'problematic' item aimed to assess a type of ethnic harassment that is theoretically specific to first generation migrants (Curry et al., 2011; Hanish et al., 2013). It is possible that the item did not fit the construct with the pilot sample due to the fact that the majority of participants were second generation migrants or multigenerational Irish children. Thus, accent wasn't a salient signifier of 'difference'. While retaining the item on the scale resulted in a lower 'reliability', it serves to capture a type of ethnic harassment specific to an under-represented population in the literature (Hanish et al., 2013). As scale construction should never sacrifice validity for the sake of reliability, it was decided to keep the item in the scale. The final scale includes five examples of ethnic bullying. Each item asks how often a child has been picked on or slagged because of a) country of birth, b) accent, c) religion, d) skin colour, and e) physical appearance. As each item addresses a specific ethnic 'trait', the individual items could be treated individually or summed as a scale.

Like the ethnic bullying scale, the five item 'observed ethnic bullying scale' was designed to measure a variety of observed bullying conduct. Items were not constructed hierarchically. Rather, they were designed to capture a wide range of aggressive ethnic behaviour. The five items created a strong, unidimensional scale ($H=0.50$) with individual items H 's ranging from 0.45 to 0.54. Additional tests confirmed a strong internal consistency in the scale. The combination of solid unidimensionality, item performance analysis and internal consistency establish reliability for the 'observed ethnic bullying' scale. As with the ethnic bullying scale, the

items could be treated individually for a descriptive analysis of bullying behaviour or summed as a scale for more advanced statistical modelling.

The perceived discrimination scale, in particular, benefited from the sensitive scaling analysis. During unidimensionality testing, two problematic items were identified: have you ever been stared at in public ($H_i = 0.31$) and have you ever been teased for not knowing a pop star, TV show, or movie ($H_i = 0.27$). These low-scoring items contributed to a poor scale with an H score of 0.38. Monotonicity plots revealed that these two items had weak discriminability. Specifically, they were incapable of differentiating between respondents with medium and high levels of perceived discrimination. Because these items were found to be superfluous and weak, they were removed from the scale. The remaining three items generated a very strong scale ($H=0.60$), with individual item H_i s ranging from 0.58 to 0.62. Through an in-depth exploration of item performance, the Mokken analyses were able to identify particularly weak items that contributed to poor scale properties. However, if this project had relied solely upon a Cronbach's Alpha coefficient to determine reliability, the original five items would have satisfied the statistical requirement for a 'fair' scale. By these standards, the scale could be justifiably used to measure to perceived discrimination, inclusive of the problematic items.³⁸ This reflects the fundamental problem with adopting an imprecise approach to establishing reliability. Scales satisfy a standardized statistical requirement and then are often implemented in analyses without further consideration. The potential outcomes are invalid test scores and the possibility of inconsistent or misrepresentative findings (M. Furr, 2011). Furthermore, the use of NIRT methods permitted the construction of a short, reliable measure of perceived discrimination. Brevity increased the child-centeredness of the measure, and also avoided the unnecessary administration of items on a sensitive and potentially upsetting topic. Thus, the benefits of adopting an NIRT approach to measures of inter-ethnic relations are evident.

While sensitivity and strong reliability of the new scales have been clearly established, shortcomings with regards to reliability remain. Overall reliability could have been enhanced by designing the perceived discrimination scale to fit a Mokken model. While the bullying measures would not have benefited from such a design as they measured one experience linked to a range of specific ethnic targets, the perceived discrimination scale could have improved its sensitivity with an incrementally increasing item structure. At the time of construction, however, I had a limited understanding of children's perception of and experience with discriminatory situations in the Irish context. To date, there is no existing research on the topic of perceived discrimination in young children in new migrant countries. Thus, I had no way of gauging which type of situation would be ranked more 'severe' than another according to a

³⁸ Cronbach's Alpha of the five item perceived discrimination scale = 0.72.

child's experience. As researchers learn more about the nature of perceived discrimination among children in new migrant communities, data could inform the development of a hierarchical scale. Such a measure would allow for a more detailed examination of the feelings behind discrimination, specifically what types of discriminatory experiences do children find most 'severe' and potentially, most harmful.

ROBUST IN VALIDITY

Establishing robust validity is tantamount to a measure's utility. Unlike reliability, validity cannot only be quantified statistically (though certain statistical tests can be used to contribute to validity). Rather, validity is something that must be incrementally assembled through a variety of methods (Furr, 2011). As robust validity was an identified aim of the current study, it was considered at every stage of the research process. A conscious effort was made to build validation methods and techniques into every stage of the research design and analytic strategy.

When designing the current project, it was decided that measurement construction would occur in two phases: an in-depth pre-test and a pilot. This decision was, in itself, an effort to build validity of the new measure. Pre-testing provided the opportunity to evaluate the pool of potential items through cognitive interviews with the target population. Furthermore, it generated qualitative data through semi-structured interviews and behavioural observations which further served to validate the quantitative findings through triangulation. The pilot measure was administered concurrently with three established and widely validated outcome measures: the Olweus Bully Victim Questionnaire, the Piers Harris Self Concept Scale, and the Children's Self Report Depression Scale. Criterion validity was built through correlations with convergent measures and theoretical outcomes. Table 31 presents the validation techniques used in the current study organized around Furr's five main components contributing to validity: a) test content, b) internal structure, c) response processes, d) associations with other variables, and e) consequences of use (2011).

Table 31: Validity Framework of the current study

Validity Component	Technique(s) used in the build validity
Test Content	Cognitive Interviews Mokken Scaling Analyses Associations with convergent measures Known group performance
Internal Structure	Confirmatory Factor Analyses Mokken Scaling Analyses
Response Process	Cognitive Interviews Administration Procedure
Associations with other variables	Correlations with convergent measures Correlations with predicted outcome variables Known group performance
Consequences of use	Administration procedure

Cognitive interview pre-testing was arguably the most crucial facet in the construction of a valid measure of inter-ethnic relations. As previously discussed, the recurrent disconnect between adults' worlds and children's worlds can result in verbal, developmental, and cultural oversights in the research design process. This risk is heightened when researching migrant children, as there is a likelihood of an added cultural difference between researcher and participant (Clark & Schober, 1992; Due et al., 2013). In her review of research methods appropriate for use with refugee and cultural minorities, Due (2013) explained that cognitive interviews address: "the issue of ensuring equivalency of understanding of the question itself — an issue which is not uncommon in research more generally, but may be particularly pertinent when working with children, and even more so when working cross-culturally".

A total of 35 cognitive interviews were conducted with children in second, third, and fourth class. A flexible approach to cognitive interviewing was adopted, consisting of both think aloud and probing methods. The interviews uncovered many problematic issues with the pool of items including problems with wording, interpretation, content, applicability, and ethics. Of the 92 items included in the pre-test, a total of 17 were retained without modification, 22 were revised based on feedback from the cognitive interviews, and 43 were omitted from the pilot survey. This may seem like a large number of omissions but the original pool of items aimed to be over-inclusive rather than truncated. This strategy is recommended in measure construction, as it allows for an exhaustive number of varying items to be considered rather than assuming *a priori* that certain items are more appropriate for inclusion than others.

Cognitive interviews also generated a substantial amount of detailed qualitative data which served to build validity and triangulation for the new quantitative measure. Chapters four and five present the relevant qualitative findings from the pre-testing phase, reinforcing the initial outcomes produced by the new measures and also providing valuable contextual and detailed evidence on the nature of children's inter-ethnic relations.

Quantitative Validation Techniques and Preliminary Findings

A variety of quantitative techniques were used to build validity for the new measures. Overall construct validity was built through confirmatory factor analyses, while criterion validity was built through associations with convergent measures, associations with theoretical outcomes, and known group outcomes. In validating the new measures, preliminary findings on the nature of inter-ethnic relations in the pilot schools were produced. The general findings are discussed in this section as they are related to the validation process. Findings specifically related to the association between inter-ethnic relations and mental health are presented in a separate section further in the chapter.

The confirmatory factor analyses built strong construct validity for these measures by endorsing the conceptual framework and predicted item performance (Brown, 2006). They also reinforced the strength of the items selected for inclusion through the pre-testing phase of the research. The success of the predicted structure models also reflects a strong, theoretical and conceptual underpinning of children's inter-ethnic relations prior to pilot construction. This was achieved through a thorough grasp of the nature of children's interethnic relations in the current context, as well as a successful execution of the cognitive interview pre-testing phase and analyses / revision of the pilot measure.

The two contact scales were tested for validity against known group outcomes, hypothesizing that children were more likely to display higher levels of contact with 'in-group' peers. As predicted, multigenerational Irish children had significantly higher levels of contact with children born in Ireland than did first or second generation migrant children. They also had significantly lower levels of contact with migrant children than first or second generation migrant children. This is in line with international findings that generational status plays a role in the formation of social circles in multiethnic communities. Majority group children are more likely to form friendships with other in-group members, while minority group children are likely to do the same. The attraction towards in-group peers is widely referred to as 'friendship homophily' and is often drawn along the lines of gender and ethnicity (Margie et al., 2005; McDonald et al., 2013; Titzmann & Silbereisen, 2009).

Even in the highly diverse 'cluster' schools, where there was not a traditional majority group presence, there was evidence of friendships formed along the lines of similarity when possible. For example, in the qualitative data, Juliana, a second generation Brazilian migrant, described her close friendship with Jessika, a first generation Angolan girl. While the girls had distinctly different cultural backgrounds, they shared a common language which served as the starting point of their mutual friendship. Durkin (2012) explains this tendency towards in-group friendships among children:

Children's friendships and social networks (like adults') tend to be homophilic in respect of ethnicity, nationality, and religion. Thus, provided that group numbers are sufficient, there is a tendency for children to elect for the company of those whom they perceive to be similar to themselves and also ample opportunities to observe that other children prefer to associate with people with whom they share an important dimension of identity.

As for the implications of friendship homophily and ethnic 'separateness', there is not a consensus in the literature. Some argue that high-quality, cross-ethnic friendships serve as a catalyst the development of positive out-group ethnic attitudes (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Page-Gould, Mendoza-Denton, & Tropp, 2008; Turner, Hewstone, & Voci, 2007). However, there are few findings addressing the potential consequences of in-group friendship.

While children tended to display high levels of in-group peer preference, there was a notable amount of inter-ethnic contact on the school level. Though not classified as 'close friendship' by most children, there were positive cross-ethnic interactions that did occur on the yard and during class time. It is important to emphasize that not all inter-ethnic relations were problematic. Furthermore, not enough is known about children's tendency towards 'ethnic separateness' to necessarily classify it as problematic. However, it is characteristic of intergroup relations both in school and outside of school, and reflective of broader societal tendencies towards "adjacency rather than integration" (Curry et al., 2011). Possible ways in which the new measure could be utilized to evaluate this trend on a broader scale is discussed further in the chapter.

As with the contact scales, the perceived discrimination scale was tested against known group outcomes. As predicted, perceived discrimination scores were significantly higher for minority children than for majority group children. In line with studies of perceived discrimination in the United States, there was significant difference on the basis of skin colour, with children of Sub-Saharan African decent reporting higher levels of perceived discrimination (Coker et al., 2009; Pachter, Bernstein, et al., 2010; Rosenbloom & Way, 2004). This suggests that children who are

more visibly 'different' than the traditional majority group are more likely to feel as though they are treated differently or discriminated against on the basis of their ethnic background.

With regards to predicted group outcomes, the ethnic bullying measure performed as expected. In line with international literature, exposure to ethnically motivated bullying was significantly more prevalent among minority group students (Devine & Kelly, 2006; Graham et al., 2009; Larochette et al., 2010) and also negatively associated with enjoyment of school satisfaction and perceived popularity (Bellmore et al., 2011). While ethnic minorities are not necessarily more prone to victimization than their majority group peers, they are more likely to experience bullying where their ethnicity is directly targeted (Larochette, 2009; Scherr & Larson, 2010; Tippett, Wolke, & Platt, 2013). Furthermore, victims of bullying are often less popular as demonstrated by sociometric peer nominations (Boulton & Smith, 1994; Pellegrini et al., 1999; Perren & Alsaker, 2006) and report lower levels of school connectedness and satisfaction (Wong, 2009; You et al., 2008).

When tested against the victim subscale of the Olweus Bully Victim Questionnaire, the ethnic bullying measure was significantly correlated ($r=.392$, $p<.001$). While this association was highly significant, it was lower than originally expected given the two measures aim to capture a similar construct. There are two hypothesized reasons for this lack of equivalency. First, the OBVQ is a general measure of bullying behavior. It includes only one item directly pertaining to ethnic bullying. As the new ethnic bullying measure relates to a decidedly specific type of victimization, it is possible that the two underlying constructs are not as similar as originally theorized. Second, the OBVQ adopts a definitional approach to bullying measurement. It includes a description of 'bullying' at the start of the measure and includes the word 'bully' on each individual item. Recent studies have found that definitional approaches to bullying self-report measures produce lower reported frequencies of bullying behavior both from victims and aggressors (Felix et al., 2011; Kert et al., 2010). Qualitative data from the current study demonstrated notable inconsistencies in children's understanding of bullying. They were in agreement that bullying was "wrong" but many were unable to provide examples of what constituted this type of behavior. In response to these findings, the new ethnic bullying measure used the phrase "picked on" to try and capture ethnic aggression. Thus, it is possible that the relatively low correlation between these two measures is a result of a conceptual disconnect between "bullying" as defined by the OBVQ and getting 'picked on'.

One of the most noteworthy preliminary findings from the validation testing involved the relationship between school ethnic composition and ethnic bullying. The role that school diversity plays in bullying behavior is complicated and often debated in the literature. Some

argue that in schools with a clearly defined majority group population, minority group children are more susceptible to ethnic harassment or bullying (Devine & Kelly, 2006; Juvonen et al., 2003; Vervoort et al., 2010). Other more recent studies contend that ethnic bullying is as common in schools with high minority populations as it is in schools with a clearly defined majority population (Larochette et al., 2010; Tolsma et al., 2013). Current findings are in line with the latter argument, as there was no significant difference in self-reported ethnic victimization on the basis of school ethnic composition. Given the exclusive minority composition of 'cluster' schools in the current sample, these findings closely resemble those from a recent UK study. Durkin et al (2012) explored the impact of school ethnic composition on discriminatory bullying. As with the current study, some schools were 'cluster' schools including 99% minority students. They found that as the minority population of a school increased, so did ethnic harassment. Particularly, schools with over 81% minority students had significantly higher rates of ethnic harassment. This was not due to a heightening of overall aggression, as there was no difference in reports of general aggression.

Given the exclusively minority population of 'cluster' schools in Durkin's study and in the current study, it also follows that minority children are as likely to perpetrate ethnic bullying as majority children (Eslea & Mukhtar, 2000b; Qureshi, 2013). This was powerfully reinforced in the current qualitative data, as children in the 'cluster' schools described overt and demonstrative incidents of ethnic harassment and racialized name-calling. This was in sharp contrast to the subtle, tacit 'separateness' that occurred in the schools with a dominant majority group. While it is possible that more blatant, aggressive forms of ethnic harassment were occurring unreported in the mixed schools, this did not seem to be the case when talking with children and observing their yard time behavior. Rather, exclusionary tactics played out subtly and often unmentioned by both majority and minority group children. This could reflect the presence of indirect prejudice, which is more common among children in middle childhood than outward, blatant forms of prejudice (Connolly & Keenan, 2002; Fernández-Castillo, 2008; Hamberger & Hewstone, 1997; Sarafidou et al., 2013).

The driving force behind both the explicit ethnic provocation at the pretest cluster school and the demonstrated tendency for ethnic minority children to engage in ethnic bullying is unknown. It has been argued that higher proportions of different minorities increase the possibility of inter-group tension which can lead to out-group mistrust or aggression (Durkin et al., 2012; Morrison & Ybarra, 2008). While this is a possibility, the current study makes no claims as to the source of this noted behavior, nor does it make a statement that this observation is generalizable. It has also been argued that 'an inclusive approach to multicultural education' actually serves to marginalize minority populations by reinforcing their 'other-ness'

through the very mechanisms which aim to include them. Labeled the ‘add diversity and stir’ approach, it is defined by an ad hoc inclusion of ‘intercultural’ elements to the curriculum and school policies (Bryan & Bracken, 2011). These weak approaches to increased diversification are inclusive in one respect, as they rhetorically ‘welcome’ minority populations, while simultaneously painting diversity as new, foreign, and abnormal for Irish society. The result is a “discourse which merely bestows a conditional passive national belonging upon racialized minorities, while simultaneously entrenching power relations between the acceptor and those whom they accept” (Bryan, 2009b). It could be that children in cluster schools are internalizing this other-ness, as it is reinforced by the population of their school when compared with others in the area, and by the staff of the school, all of whom are from the traditional majority group population. The persistent emphasis on diversity and ethnic background in the school environment and in the curriculum breeds children who, on the one hand, possess a sophisticated awareness of others’ cultural backgrounds, and on the other, have their ‘difference’ from majority society reinforced on a persistent basis. Furthermore, the intercultural inclusivity of school rhetoric may serve as a deflection from approaching racism and ethnic bullying through more concrete procedures. As the principal of one cluster school explained, ‘there is no precedent’ in the Irish education system for how schools should manage this type of segregated school composition. Left to their own devices, they aim to create a school culture that is inclusive, and inadvertently develop a school culture that highlights difference, both on a societal level and a personal level within the classroom. The result may be children drawing upon these noted ‘differences’ when acting out aggressively towards their peers (i.e. overt racialized name calling). Ways in which the new measure could be used to explore the relationship between school ethnic composition and ethnic harassment is discussed in greater depth further in the chapter.

Overall, robust validity was built through a battery of techniques including confirmatory factor analyses, criterion validity testing, triangulation through qualitative findings, and cognitive pretesting. The varied and inclusive strategies are reflective of a mindful and deliberate focus on validity construction throughout the life of the project. All five types of information that contribute to validity were acknowledged and evaluated (Furr, 2011). Test content and response processes were examined in detail during the cognitive pre-testing. Internal structure was predicted and verified through confirmatory factor analyses. Associations with other variables were tested against established, widely used measures of bullying, well-being, and mental health. Consequences of use with regards to practitioners, researchers, and policymakers will be discussed further in the chapter.

This project aimed to design a measure of inter-ethnic relations that was valid for use in new migrant communities. The need for this measure is well reflected in the literature. In the field of intergroup relations, there is a tendency towards measuring racial attitudes and prejudices as an indicator of inter-ethnic relations. This is particularly common among researchers in communities with a long-standing history of multiculturalism and diversity such as the United States and Canada. Racial attitudes are often assessed through 'ethnic figure rating' measures such as the Pre-school Racial Attitude Measure (PRAMII), the Multi-Response Racial Attitudes measure (MRA), or Implicit Association Tests (IATs) (Aboud, 2003; Baron & Banaji, 2006; Castelli, Zogmaister, & Tomelleri, 2009; Newheiser & Olson, 2012; Williams, Best, & Boswell, 1975). While these measures are adept at capturing blatant and subtle forms of racial prejudice, they are reliant on physical characteristics as a determining factor of difference. Thus, they ultimately measure attitudes on the basis of skin colour or other ethnic features. Skin colour and physical markers of 'difference' are important factors to consider, both in new and long-standing multicultural communities. In line with existing research from the Finland and the United States (Liebkind et al., 2004; Pachter, Bernstein, et al., 2010), this study found that children who are more physically 'different' than the dominant majority group in terms of skin colour are significantly more likely to feel discriminated against. However, ethnic figure rating measures are not always an appropriate gauge of inter-ethnic relations in new migrant communities. Many migrant children in Ireland and other European countries come from EU states and often times have physical features that mirror those of the dominant majority group. Thus, skin colour and physical markers are not salient as a marker of 'difference'. However, new migrant children may experience 'otherness' based on cultural differences, language barriers, or negative associations with their birth country (Hanish et al., 2013).

Furthermore, many existing measures of inter-ethnic relations are narrow in scope and fail to account for the unconventional types of inter-ethnic friendships that may develop in a new migrant community. For example, while migrant and multigenerational children might not nominate each other as 'best friends' on a sociometric measure, it does not mean that they aren't engaging in friendly contact during school time. In fact, as touched upon earlier, there were several manifestations of friendly cross-ethnic contact that were documented through the quantitative data and through qualitative observation. This type of interaction is not 'best friendship', but indicates the presence of some positive, or at least impartial, inter-ethnic attitudes. However, casual contact (i.e. playing on the yard) goes unaccounted for in most single-item indicators of inter-ethnic relations.

The current measures were designed and validated in a new migrant community. All of the new scales address dimensions of inter-ethnic relations that are distinct and applicable for use with first generation migrants. The 'Contact with Migrant Children' scale is a child-centred, sensitive, and robustly valid measure of contact with first generation migrant children that could easily be modified and tested for validity with children in other new 'receiving' migrant communities (Denmark, Finland, Spain, Holland, Italy) (Reyneri & Fullin, 2011). Along with the 'Contact with Children Born in Ireland' scale, this measure captures in and out of school contact to allow for a more complete and contextual exploration of migrant / non-migrant friendship patterns.. The bullying scales take a broad approach to measuring ethnic harassment, asking questions that may be relevant to all minority children regardless of generational status (i.e. skin colour, religion) but also questions that are particularly tailored for first generation migrant children (i.e. country of birth, accent). The perceived discrimination scale also considers the experiences of first generation migrants by including 'country of birth and accent' along with other potential discriminatory targets (skin colour, religion).

One shortcoming of the new measure pertains to the 'contact scales' specifically. Early in the pre-test, specific complications related to terminology and item wording became apparent when trying to find a way to succinctly frame inter-ethnic contact for use on a child-centred measure. Discussing inter-ethnic relations can be thorny and convoluted, as there are many possible contingencies and gradations to consider. What classifies a migrant? When does a migrant become a citizen? How are children born in Ireland to migrant parents to be referenced? These are common topics of debate and disagreement among adults, with no persistent consensus or general resolution. However, in the adult world, there are a variety of widely accepted, 'politically correct' terms to describe individuals' ethnic backgrounds in a given context: majority / minority, first / second generation migrant, multigenerational. Of course they are susceptible to subjective interpretation, but the meanings of these terms are widely recognized and agreed upon by among most adults.

These terms, however, are not typically present in the child's vernacular. It is not that children are unaware of ethnicity, skin colour, or birth country. Rather, they don't have a socially accepted vocabulary to draw upon. At no stage in the current study did a child refer to him or herself as a 'migrant' or a 'second generation migrant'. These constructed terms are imposed on children as a form of classification, but they are not (yet) internalized or incorporated into their personal identity. Children often spoke of their birth countries, their parents' birth countries, and their friends' birth countries with ease and sophistication. 'Second generation migrants' frequently reiterated that they were born in Ireland, or that they were 'Irish', designating themselves from children who weren't born in Ireland and therefore, weren't 'Irish'.

Well, no one in this class [cluster school] is Irish except for me.

-R109, second generation Brazilian girl, fourth class

This study does not focus on ethnic identity, per se. However, the above quote provides as an apt example of the complex nature of children's ethnic identity and in turn, the difficulties associated with wording a measure of inter-ethnic contact. To date, there has been no child-based, quantitative research on inter-ethnic relations in Ireland and therefore, no precedent to follow. Terms relied upon in qualitative write ups (i.e. 'local', 'newcomer', 'migrant', 'Irish') were plainly inapplicable in the current context. Therefore, new child-centred ways of discussing ethnic backgrounds had to be explored in the cognitive interviews.

During pre-testing, it was determined that children had a broad understanding of their friends' and classmates' national backgrounds. Among children in 'cluster' schools, this understanding was slightly more refined than children in mixed schools. Ninety one per cent of children in cluster schools knew where their best friends were born, compared with 88% of children attending non-cluster schools. Similarly, 70.4% of children in cluster schools knew where their classmates were born, compared with 61% in non-cluster schools. This reflects a relatively sophisticated understanding of birth country and national background at the 'microsystem' level; that is, the ecological layer directly encasing the child. Children interact with individuals in their microsystem on a near-daily basis, explaining this heightened level of awareness. However, children were less confident about the birth countries of their friends' and classmates' *parents*. Sixty two per cent of children knew where their best friends' parents were born, but only 28% knew where their classmates' parents were born. This suggests that most children are cognizant of ethnicity on a microsystem level, but less confident with regards to ethnicity on an exosystem level.

Thus, it was possible to word a measure of contact on the basis of children's birth countries, but would have been invalid and doubly complicated to refer to children's parents' birth countries. As such, the final measure refers specifically to 'contact with children born in Ireland' and 'contact with children born outside of Ireland'. Many second generation migrant children made a point of clarifying that they had been born in Ireland, or that they were 'Irish' during the cognitive interviews. Thus, it is predicted that, at least for second generation migrant children, the 'born in Ireland' classification includes children born in Ireland to migrant parents. While this limits the nuanced interpretability of the contact measure, it maintains its validity for use with migrant children and children born in the State.

This study applied the newly designed measure in an area that has recently demonstrated a need for a valid tool of inter-ethnic relations among children: mental health and well-being. A worthy objective in its own right, this aim also contributed to the overall construct validity of the measure and the study as a whole, as it sought to determine if the developed measure was valid in the framework of an overarching theory of problematic inter-ethnic relations and health. The study approached the association between inter-ethnic relations and mental health by focusing on two areas of demonstrated need: the relationship between perceived discrimination and mental health, and the relationship between ethnic bullying and mental health.

The association between perceived discrimination and mental health in children has been gaining attention in recent years. An extensive literature review of empirical studies by Patcher and Coll (2009) produced 40 articles reporting research on perceived discrimination and child health. In 2012, a review on the relationship between perceived discrimination and mental health in children and youth produced 156 articles from 121 studies (Priest et al., 2013). The increasing consideration that the subject has received in the past few years underscores a growing recognition of the importance of the topic. However, the existing research is rather limited in scope. Over 70% of studies have been conducted in the United States of America, with an additional 10% taking place in Australia and Canada. Very few studies have focused on new migrant communities. Furthermore only 38% of studies involve primary school aged children in their sample.

In testing the new perceived discrimination measure against mental health outcomes, construct validity was built by placing it within the theoretical framework surrounding discrimination and health. The preliminary findings from this research also contribute to the increasing body of literature on the associations between perceived discrimination and mental well-being. The new measure of perceived discrimination was tested against four outcome variables: happiness, self-concept, freedom from anxiety, and depressive symptoms. The findings aligned with international literature, revealing a strong, negative relationship between perceived discrimination and happiness, self-concept, and freedom from anxiety. There was also a strong positive relationship with depressive symptoms (Pachter & Coll, 2009; Priest et al., 2013). These findings are not necessarily surprising, as they reflect the same patterns revealed in the international literature. However, as this is the first known examination of perceived discrimination effects among children in the Irish context, the findings have strong implications. First, they suggest that migrant and second-generation migrant children are internalizing

feelings of 'otherness' and active discrimination from society at large. Furthermore, these feelings could have potentially harmful consequences on their general mental well-being. Children in this study ranged in age from 8-11, demonstrating that very young children are capable of displaying harmful outcomes associated with perceived discrimination. If the trends in the international literature hold true in the current context, feelings of perceived discrimination and racism tend to increase with age (Pachter, Bernstein, et al., 2010; Runions et al., 2011). Older children who report feelings of perceived discrimination are more likely to engage in problematic risk-taking behaviors such as delinquency, early substance abuse, smoking, and drug use. Problematic mental health issues such as depression, anxiety, hopelessness, and post-traumatic stress have all been linked to perceived discrimination among children (Priest et al., 2013). The gravity of these associations is obvious. Thus, the preliminary findings produced in this study warrant a broader examination of these harmful associations among a large, representative sample of minority children in Ireland.

The association between inter-ethnic relations and mental health was also examined through exposure to ethnic bullying. The relationship between peer victimization and poor mental health outcomes is well-established in the literature. As with perceived discrimination, peer victimization is associated with depression, anxiety, loneliness, psychosomatic physical ailments, and suicide ideation (Arseneault, Bowes, & Shakoor, 2010; Copeland et al., 2013; Glew et al., 2005; Kaltiala-Heino et al., 1999; Priest et al., 2011; Rigby, 1998). However, there is an explicit need for further investigation into the associations of mental health and ethnic bullying, specifically (Hanish et al., 2013). The ethnic bullying scale was tested against the four mental health outcomes. In line with the general bullying literature, exposure to ethnic bullying was significantly associated with problematic mental outcomes including higher anxiety, higher depressive symptoms, low feelings of self-concept, and low levels of happiness. Furthermore, each individual ethnic bullying item mirrored these findings. This denotes that exposure to teasing and bullying on the basis of any of the five presented ethnic traits (i.e. birth country, religion, skin colour, accent, and physical appearance) is associated with poor mental health and well-being. Few quantitative research studies have focused on the effects of ethnic bullying, specifically. As such, these preliminary findings demonstrate a need for a broader investigation of the association between ethnic bullying and harmful internalizing effects in children. The prevalence of ethnic bullying at both mixed and cluster schools in the current study, combined with the harmful health associations of exposure to bullying, demonstrate the need for active anti-bullying policies and a heightened societal awareness of the destructive outcomes associated with ethnic bullying, specifically.

The first part of this final chapter has described the ways in which the project achieved its stated goal of building a broad and coherent, child-centred, psychometrically valid measure of inter-ethnic relations applicable for use in new migrant communities. The remainder of the chapter focuses on recommendations for further use. A tremendous amount of work went into the development and validation of this new measure. Now, the hope is that it will see further application by practitioners and researchers in an effort to promote healthy and positive inter-ethnic relations among children in Ireland and abroad.

7.2 – RECOMMENDED APPLICATIONS FOR THE NEW MEASURE

This project concludes by looking towards the future of children’s inter-ethnic relations research. This section begins by presenting the strengths of the new measure from a practitioner’s standpoint, and then suggests possible ways in which the measure could be used to inform practices and policies influencing children’s inter-ethnic relations.

STRENGTHS OF THE NEW MEASURE FOR PRACTITIONERS

The strengths of the new measure can be effectively summarized through the lens of practical application, as this was a driving motivation behind the project at all times. It was the objective of the study to create a valid, child-centred measure of inter-ethnic relations that was accessible and appropriate for use by practitioners who work with children on a regular basis (teachers, principals, youth workers, social workers, social researchers, etc). Existing measures of inter-ethnic relations are often inappropriate for this population for a number of reasons that will be discussed. A foremost strength of the new measure is that it is accessible and applicable for a wide range of practitioners. The beneficial aspects of the measures’ qualities include:

- Easy to administer
- Easily-interpretable
- Broad, coherent, and relevant in content
- Psychometrically reliable and robust in validity

Proper administration of many pre-existing measures of inter-ethnic relations can be demanding of both time and resources. For example, ethnic figure rating measures such as the PRAM II and the MRA necessitate one-on-one administration aided by visual prompts such as printed pictures (Aboud, 2003; Davis, Leman, & Barrett, 2007; Williams, Best, & Boswell, 1975). In a similar vein, Implicit Association Tests require computers and software for one-on-one administration with students (Baron & Banaji, 2006; Dunham et al., 2006; Rutland et al., 2005). While these measures are considered sophisticated and effective in their ability to capture young children’s racial attitudes, it is unrealistic to expect teachers, youth workers, or applied

practitioners to use them as indicators of classroom inter-ethnic relations, for example. For one, the measures are designed for use in psychological and sociological academic research. Furthermore, primary school teachers are markedly under-resourced and over-worked (Bryan, 2009b; Devine, 2005). Finding the time to conduct one-on-one inter-ethnic relations research would, undoubtedly, be relatively low on a teacher's list of priorities. As such, self-report measures often present the best option for teachers or other child-care workers to gather data on children's inter-ethnic relations. While there are some existing self-report measures of peer relations, many are demanding of resources in a different respect: cost. The Olweus Bully Victim Questionnaire, for example, has been validated for use with a variety of international populations, including primary school children in Ireland (O'Moore, Kirkham, & Smith, 1997). However, the cost for a set of 30 questionnaires is thirty Euros, making it prohibitively costly for many under-resourced schools to administer.³⁹ The current measure gauges key aspects of inter-ethnic relations in an easy to administer, pen and paper format. It is the aim to make the measure available, free of charge, to teachers, practitioners, and researchers. Guidelines for administration and interpretation are straight forward and it requires no additional resources on the part of the practitioner. Thus, it is ideal for use in a school or youth programme setting.

Another benefit of the new measure is that it presents an accessible and easily-interpretable scoring procedure. Accurately understanding the output of some existing measures of inter-ethnic relations (i.e. sociometric methods) requires relatively sophisticated analytic techniques typically reserved for quantitative researchers and psychometricians (Cillessen, 2009). It is unlikely that the majority of applied practitioners would have extensive training in this field, thus the scoring procedures of such measures may be overly complicated. Some software does exist to ease the burden of sociometric analysis for teachers and practitioners but it comes at a cost.⁴⁰ The current measure adopts a straight-forward, intuitive, summed scoring procedure. By simply adding scored response categories, teachers and practitioners can gauge a child's level of contact with migrant students, for example, or various children's observation of ethnic bullying at school. This allows for easy interpretation of data both at the child level and the class level. Furthermore, the scales also allow for extraction and analysis of individual level variables. For example, if a principal wants to distinguish if children are being targeted because of a specific ethnic trait (i.e. religion), he or she could isolate the output from that specific item for exploration.

³⁹ Permission was obtained from Dan Olweus to use his survey, in its entirety, as a validation measure on the current study. As per his request and copyrighting laws, a complete version of this questionnaire will not appear in any published outcomes from this study.

⁴⁰ Walsh's Classroom Sociometrics Software provides relatively easy to use software for teachers or researchers.

The practical applicability of the new measure is also reflected in the content of the scales and the individual items. Many existing measures of inter-ethnic relations focus on ethnic or racial attitudes. While this is an undeniably valuable and important dimension to explore, there is debate in the literature regarding the association between implicitly held beliefs and lived behaviours (Dasgupta, 2004; Fazio & Olson, 2003; Fishbein & Ajzen, 2005). From a practitioner's standpoint, the valid and precise measurement of children's behaviours (i.e. ethnic bullying) is a tangible way to gain perspective on local inter-ethnic relations. For example, the ethnic bullying scale and the observed ethnic bullying scale could alert teachers to the nature of problematic inter-ethnic relations occurring during school time. As there can be a disconnect between teacher's perceptions of and children's experience of bullying (Naylor et al., 2006; Pakaslahti & Keltikangas-Jarvinen, 2000; Stockdale, Hangaduambo, Duys, Larson, & Sarvela, 2002), these measures serve to provide adults with a child-centric view of the nature of inter-ethnic relations in the school. By keeping the focus of the measures primarily on inter-ethnic behaviours, the study produced a measure that provides practitioners with concrete, lived-world data on inter-ethnic relations in a given context.

The final and most advantageous aspect of the new measure is that it has been developed and *validated*, according to strict and sophisticated psychometric standards, for use with majority and minority group children aged 8-11. Of the principals who participated in the study, some had developed their own questionnaires in the past in an attempt to measure ethnic bullying. Likewise, a simple 'google' search produces sample bullying questionnaires for teachers to use in their classroom. These examples underscore the need for the current, validated measure, and also demonstrate the potential for ill-informed data generated by ad hoc measures. In the academic literature, many of the existing studies of inter-ethnic relations build upon foundations of weak validity, using measures that have been tested for use with an inappropriate age group or in a very different context. Of the existing, validated measures with the target age group, nearly all have been developed in communities with longstanding histories of multiculturalism and diversity. These measures were tested and validated according to strict psychometric standards, but the test sample differs in many significant ways from children in a new migrant community such as Ireland. The current measure was developed by direct consultation with the target group. Conceptual issues, wording difficulties, and interpretability problems were highlighted and revised prior to pilot administration. Following the pilot, detailed psychometric analyses were conducted to determine the reliability, unidimensionality, and scalability of included items. The end result is a truly valid, child-centred measure of key dimensions of inter-ethnic relations.

From a practitioner's standpoint, the measure's sensitivity, reliability, and robust validity might go unnoticed. After all, these qualities are only of true interest to a niche group of psychometricians. However, the end result captures what I aimed to construct: a simple, easy to use, child-centric questionnaire about inter-ethnic relations. The cognitive interview data informing item selection, the item response theory scaling analyses investigating monotonicity and discriminability – these foundations aren't visible in the final paper version of the questionnaire. However, the careful and thorough psychometric procedures will unquestionably inform the quality of the data generated by the measure in an applied setting.

RECOMMENDED USES AT THE SCHOOL LEVEL

The new measure is ideal for school-based application in that it is broad, straight-forward, easy to interpret, undemanding of resources, and valid with the target population. Through proper use, teachers and principals can gain valuable descriptive information on the nature of inter-ethnic relations among children in their school. Of particular interest to school practitioners would be the ethnic bullying scale and the observed ethnic bullying scale. The negative effects and potential consequences of bullying have been highly publicized in recent years. As such, a myriad of anti-bullying intervention programs and policies have been developed at a national level and by individual schools. In September 2013, Ireland's Minister for Education announced a plan to implement nationwide, anti-bullying training sessions for parents in conjunction with the Department's new anti-bullying procedures. This initiative requires all national schools to establish formal anti-bullying policies, based on a template provided by the department. It requires the specification and inclusion of identity based bullying such as ethnic harassment in all school anti-bullying policies. With these new policies in mind, schools will be eager to effectively measure and monitor bullying during school time. The new measures offer a ready, validated, easy to use indicator of ethnic bullying among primary school students. Furthermore, the measure could be used to evaluate the effectiveness of school bullying prevention programs, anti-racism strategies, or the effects of cooperative learning on cross-group contact.

Furthermore, the demographic questions included in the 'about me and my family' section of the measure can provide much needed data on the ethnic and cultural composition of classrooms. Ireland has no standardized information on the demographic composition of its primary schools. There is no categorization of migrants, second generation migrants, or multigenerational Irish children. As such, there is no way to compare educational or behavioural outcomes of these groups. Nor is there a way to accurately measure the distribution of minority populations across Ireland's primary schools. The implications of the formation of minority 'cluster' schools are very serious. International history has long demonstrated that segregated schooling is separate but by no means equal in terms of academic performance and allocation of resources (Burgess,

Wilson, & Lupton, 2005; Hanushek, Kain, & Rivkin, 2002). In the local context, the achievement gap between non-migrant and migrant teens is beginning to manifest, arguably due to an over-representation of minority youth in DEIS schools and vocational schools (Ledwith & Reilly, 2013). The social and psychological repercussions of segregated schooling on minority children are also severely problematic (Constantine, 2006). Furthermore, ethnic school segregation may have long term societal effects, as “racial contact in schools may affect such things as the level and distribution of academic achievement in the population, racial attitudes, subsequent social and economic outcomes of students, and patterns of residential integration” (Clotfelter, 2001). The optimism surrounding Ireland’s ‘new diversity’ and the wherewithal to circumvent the mistakes made by other ‘sorry story’ European nations has long since faded. Now, Ireland finds itself having slipped into segregation and facing potential ghettoization if radical steps to reform school ethnic composition are not taken.

The current Minister of Education has recently begun taking steps to address the exclusivity of school enrolment policies, introducing a plan to replace at least 50% of schools governed by the Catholic Church with other nondenominational or multidenominational patron bodies. Further proposals include eliminating ‘first come, first serve’ enrollment policies and application fees for some secondary schools (Holden, 2013). While this shift towards less discriminatory and exclusive enrollment policies is undoubtedly a step in the right direction, there is still a need for existing schools to be open and transparent about their current level of minority students.

One way to increase transparency regarding school ethnic composition would be to require schools to keep public records of the collective ethnic backgrounds of its student body. In doing so, schools that are “assuming more responsibility” for enrolling students of minority backgrounds would become visible, as would schools that are not.⁴¹ One source of frustration and anxiety for the principals of cluster schools who I spoke with during the course of this research was that they felt largely invisible: to the public and to policy makers. The phrases ‘no one knows what’s going on here’ and ‘no one is listening’ were uttered frequently during initial phone calls, meetings, and subsequent field work sessions. Collecting and maintaining basic, generational status demographics on the student body could be easily achieved using three questions from the new measure. While these categorizations are crude, they provide a more holistic picture of the nature of inter-ethnic schools than simply relying on parent or child nationality. The new measure of inter-ethnic relations includes three questions, widely interpretable to all children over the age of eight who participated in this study, which determine a child’s status as first generation migrant, second generation migrant, or multigenerational Irish.

⁴¹ This phrase is directly lifted from the DES report following the enrolment policy audit of 2008.

FUTURE RESEARCH

The new measure of inter-ethnic relations makes a valuable contribution to the community of quantitative inter-ethnic researchers. The current project embarked upon intensive design and validation phases. Now, it is hoped that the measures will see an application by fellow researchers, as well as practitioners. The preliminary findings produced through validation testing serve as a jumping off point for the future of quantitative inter-ethnic relations research in the Irish context. Further research is needed to investigate whether the patterns emerging in the current study are present on a broader scale.

The emergence of 'cluster' schools is, in and of itself, a problematic trend. The role that school ethnic composition plays in students' inter-ethnic relations requires further examination. Preliminary quantitative findings showed a slightly higher level of reported ethnic bullying in 'cluster' schools, though it was not significantly higher than in mixed schools. This was supported in the qualitative data, as children at the 'cluster' pre-test school were much more likely to describe instances of blatant and overt racialized name calling and ethnic bullying than students at mixed schools. The extremity of the ethnic composition of the schools in this study is representative of particular areas in Ireland, but is not, by any means, generalizable on a national or international scale. An examination of inter-ethnic relations in a wide number of schools with varying proportions of majority / minority group students would provide more insight into the associations between school ethnic composition and ethnic bullying.

The noted relationship between problematic inter-ethnic relations and mental health requires further investigation. Longitudinal studies on the effects of problematic inter-ethnic relations would be beneficial to explore the ways in which effects manifest overtime. Furthermore, an exploration of potential moderators of mental health outcomes is needed. Moderators at an individual level such as gender and age; social supports such as friends, teachers, siblings and parents; and individual responses such as anger or acceptance all could potentially interact with the association between problematic inter-ethnic relations and mental health (Priest et al., 2013).

The contact scales fit a strong non-parametric item response theory Mokken model, demonstrating sensitivity and hierarchical item ordering. The psychometric reliability of these scales could be further enhanced by testing for fit with parametric Item Response Theory models such as the Rasch Graded Response Model. Non-parametric IRT methods were ideal for the development and psychometric evaluation of a new measure, as they are efficient for use with small sample sizes and adopt a 'bottom up' approach to hierarchical clustering which is well suited to measurement development (van Schuur, 2003). Now the scales have been developed

and psychometrically evaluated, they could be used with a large sample and then tested for fit with a stricter, parametric IRT model. The scales' strong fit with the Mokken double monotonicity model make them ideal candidates for testing with Rasch models, as they have already satisfied many of parametric IRT's assumptions including unidimensionality, invariant item ordering, non-intersection and monotonicity. Future, large-scale applications of the contact measures could adopt a parametric IRT analytic approach to conduct in-depth evaluations of the scale and individual person statistics.

While much of the discussion focused around problematic inter-ethnic relations, it is important to emphasize that not all inter-ethnic interactions among children are negative. Further research into the nature of cross-ethnic friendships, and the unconventional types of friendships that may develop between first generation migrants, second generation migrants, and multigenerational children would effectively shed light on this issue. The contact scales effectively capture many different aspects of inter-ethnic relations, including casual and intimate in and out of school contact. These measures could be used to explore broad patterns of in-school and out-of-school inter-ethnic contact. This would paint a better picture of the nature of cross-ethnic interaction and ethnic 'separateness' on a societal level.

Finally, the new measures of inter-ethnic relations are highly fitting for intervention evaluation. As touched upon earlier, schools in Ireland are required to adopt and implement formal anti-bullying policies as of this year. Furthermore, the minister is launching a parental awareness program regarding bullying behaviour, recognizing the need for a 'whole community' approach to tackling bullying. These policies and programmes are steps towards addressing peer aggression, as they are recognizing that the problem exists and adopting a prevention-oriented approach to the issue by raising awareness among students, teachers, and parents. There is a need for a similar approach to racism, in schools and in society at large. As noted by Bryan (2009), "the inclusive and anti-racist aims and civic nationalist ideologies of intercultural education are often not realised in practice, but rather function as a means of enabling the state to attempt to restore legitimacy within a context of state-led racist policies and political-economic arrangements and escalating racism". Direct and progressive anti-racism strategies are crucial in order to reduce racialized name calling, ethnic bullying, and feelings of discrimination among children. Given the grave negative associations with ethnic victimization and discrimination, prompt recognition and action is critical. The new measures could provide fundamental tools for evaluating anti-racism programme effectiveness.

LIMITATIONS

Embedded in any body of research are a number of limitations. One limitation of the current study centres on the reliance on the catch-all term of 'ethnicity' in the study. As detailed in Chapter 2, ethnicity as a construct is highly debated in the literature, with no widely accepted definition. In the current study, it was used to describe the cultural, racial, religious, ancestral, and national backgrounds of children in the study. While deemed to be the most appropriate way of categorizing individuals for the task at hand, it is unquestionably objective and overly restrictive. Furthermore, labels such as 'first generation migrant' and 'second generation migrant' were imposed upon participants by the researcher for the purpose of categorization and clarification. It is likely that many participants would not conceptualize or define themselves in these specific terms. This is something that must be taken into consideration by the reader, as it has been by the researcher.

Another limitation of the current study is the non-representative sample. Using 'cluster' schools as recruitment points offered many positive and unique elements to the project. However, it also provided a sample of students who are not representative of Irish primary school children on a broader scale. Furthermore, there were inconsistencies in parental consent and thus, response patterns between cluster schools and non-cluster schools. The research would have benefited from a more socioeconomically and geographically representative sample. While this project successfully generated and validated five child-centred scales for use in Ireland, researchers must exercise caution when applying the scales in other contexts. The emphasis placed on migrant status and socially targeted attributes of new migrant children (i.e. language, birth country) increases the likelihood of applicability in other new migrant communities. However, it will be necessary for researchers to validate these tools in their own context prior to administration.

7.3 - SUMMARY

The current study designed and evaluated a broad and coherent, reliable and sensitive, psychometrically valid, child-centred measure of inter-ethnic relations. This measure is, to my knowledge, the first of its kind that is valid for use in new migrant communities. The final measure includes five scales capable of measuring positive and problematic inter-ethnic relations. The 'Contact with Children Born in Ireland' scale and the 'Contact with Migrant Children' scale are both six item measures meeting the requirements for a strong, Mokken double monotonicity model. The ethnic bullying scale and the observed ethnic bullying scale capture a range of discriminatory experiences. The perceived discrimination scale is one of the first of its kind to be valid for use with migrant children in the European context. The measures have been tested valid with children ranging in age from eight to eleven years old. They are

child-centred in its wording, content and presentation. However, to maintain child-centeredness, they must be administered with child-centeredness in mind. Children in middle childhood have typically entered the phase of operational cognitive development and are able to engage in abstract thinking and logical problem solving. However, not all children develop at the same rate and therefore, researchers and practitioners should take an individualized approach when utilizing the measure.

The measures are widely applicable to both researchers and practitioners due to their flexible structure and broad content. Scales can be administered collectively or separately, as they have each been tested reliable and valid individually. Furthermore, sole items can be examined to allow for detailed exploration of a specific type of contact or behaviour. While many measures of inter-ethnic relations focus on attitudes, the new measures focus almost exclusively on behaviours. This makes the new measure particularly pertinent to evaluations of school-based racism and bullying interventions.

Preliminary findings demonstrate the clear presence of ethnic bullying in all schools, a specific strain of aggressive behavior that targets a child's country of origin, skin colour, language, religion, or ethnicity. This was present in mixed school as well as 'cluster' schools, and minority children were as likely to act as aggressors as majority group children. In qualitative interviews, children in the 'cluster' school described more incidents of blatant, racialized name calling than children in mixed schools. Children in mixed schools, however, were more likely to maintain distinct social circles, drawn along majority / minority lines. Exposure to ethnic bullying and feelings of perceived discrimination were associated with poor mental health outcomes including depressive symptoms and anxiety. Further research is needed to examine these preliminary findings on a broader scale, to identify patterns of positive, indifferent, or harmful inter-ethnic relations among children in new migrant communities.

Finally, this study wants to emphasize that not all is bleak with regards to children's inter-ethnic relations in Irish primary schools. Much of the preliminary analyses focused on more negative aspects. However, these are areas that need direct and immediate attention. Positive attitudes towards multiethnic schooling, cross-ethnic friendships, and examples of profound kindness were also observed. Some children reformed their attitudes and behaviors after participating in school-based, anti-racism initiatives. Many principals were pro-active in addressing issues of racism and bullying in their schools, expressing a willingness to tackle these issues directly and 'head-on'. There is still ample opportunity for reform and change, and many 'front-liners' in schools who are eager to carry the torch. However, without honest, frank, and transparent discussion about ethnicity and racism at a societal level, it is unlikely that change will be attained.

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STUDENT SURVEY

INSTRUCTIONS:

Thank you for taking the time to fill in this survey!

This survey will ask you questions about your school, your classmates, your family, the area where you live, and your feelings about some things.

This is not a test and there are no "right" or "wrong" answers. Just try to be as honest as you can. I won't share your answers with anyone else.

If you don't want to take this survey, that's ok! You can stop at any time.

Also, if you have any questions, just raise your hand and I'll come talk with you.

Thanks for sharing your thoughts with me!

Sample Question: This survey will have questions with possible answers below. Please put a check in the box that best describes you!

Are you a boy or a girl?

Boy

Girl

Part 1: School

What class are you in? _____

When did you start going to this school?

- Junior Infants
- Senior Infants
- 1st Class
- 2nd Class
- 3rd Class
- 4th Class



Do you enjoy school?

- Most of the time
- Sometimes
- Never

Do you have fun at school?

- Most of the time
- Sometimes
- Never



Do you feel happy at school?

- Most of the time
- Sometimes
- Never

Here are some more questions about things that might happen at school. Remember, there is no right or wrong answer. Just try to be honest!

6. How often do you pick on someone, tease someone, or slag someone for any of the following reasons:

Because of where they were born?

.....

Everyday About Once a Week About Once a Month Never

Because of their accent or the way they talk?

.....

Everyday About Once a Week About Once a Month Never

Because of their religion?

.....

Everyday About Once a Week About Once a Month Never

Because of the colour of their skin?

.....

Everyday About Once a Week About Once a Month Never

Because of how they look?

.....

Everyday About Once a Week About Once a Month Never

How often do other people pick on you, tease you, or slag you for any of the following reasons?

Because of where you were born?

.....

Everyday About Once a Week About Once a Month Never

Because of your accent or the way you talk?

.....

Everyday About Once a Week About Once a Month Never

Because of your religion?

.....

Everyday About Once a Week About Once a Month Never

Because of the colour of your skin?

.....

Everyday About Once a Week About Once a Month Never

Because of how you look?

.....

Everyday About Once a Week About Once a Month Never

8. How often do you see other kids getting picked on, teased, or slagged for any of the following reasons?

Because of where they were born?

.....

Everyday About Once a Week About Once a Month Never

Because of their accent or the way they talk?

.....

Everyday About Once a Week About Once a Month Never

Because of where their religion?

.....

Everyday About Once a Week About Once a Month Never

Because of the colour of their skin?

.....

Everyday About Once a Week About Once a Month Never

Because of how they look?

.....

Everyday About Once a Week About Once a Month Never

Part 2: Where you live

9. Do you like the area where you live?

Most of the time

Sometimes

Never

10. Do you feel safe in the area where you live?

Most of the time

Sometimes

Never

11. Do you play with other kids around where you live?

Most of the time

Sometimes

Never

12. About how many friends do you have who live in your area?

I don't have any friends in my area

I have one friend in my area

I have 2 or 3 friends in my area

I have 4 or 5 friends in my area

I have more than 5 friends in my area

Part 3: Being Treated Differently

13. Sometimes children are treated differently because of where they come from, the colour of their skin, their accent, or their religion. Below are some questions and I'd like you to think about if you've ever been treated this way because of the colour of your skin, your accent, where you were born, or your religion.

Have you ever been treated badly because of the colour of your skin, your accent, your religion, or where you were born?

.....

Many Times A Few Times Never

Have you ever felt embarrassed because of the colour of your skin, your accent, your religion, or where you were born?

.....

Many Times A Few Times Never

Have you ever been called a bad name or teased because of the colour of your skin, your accent, your religion, or where you were born?

.....

Many Times A Few Times Never

Part 4: Where people are from

4. Do you have any best friends who were born in Ireland?

Yes

No

If yes, how many? _____

5. Do you have any best friends who were born outside of Ireland?

Yes

No

If yes, how many? _____

6. Were you born in Ireland?

Yes

No

If no, where were you born? _____

How old were you when you moved to Ireland? _____

17. Was your mother born in Ireland?

Yes

No

If no, where was she born? _____

18. Was your father born in Ireland?

Yes

No

If no, where was he born? _____

Part 5: Who You Spend Time With

16. Below you will see a list of different activities. For each question, I want you to think about how often you do that thing with someone who was born in Ireland.

Talk together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Talk outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Invite over to your house?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play over at their house?

.....

Everyday A few times a week A few times a month About Once a Month Never

17. Now I want you to think about how often do you these activities with someone who was born outside of Ireland.

Talk together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Talk outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Invite over to your house?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play over at their house?

.....

Everyday A few times a week A few times a month About Once a Month Never

Part 6: You and your family

8. How old are you? _____

9. Do you have any brothers and sisters?

Yes

No.

If yes, how many? _____

10. How often does your family go to church / mosque / synagogue?

Never

A few times a year.

About once a month

About once a week

More than once a week.

11. What is your religion?

Catholic

Christian

Muslim

Jewish

Hindu

Other: _____

Not religious

22. If a magic genie came out of a bottle and gave you three wishes, what would you wish for?

23. Is there anything else that you'd like to share about yourself?

APPENDIX B: PRE-TEST MEASURE

Questionnaire for Students



Section A: School

1. What class are you in? _____

2. How long have you been going to this school? _____

3. I'm going to ask you a few questions about how you feel about your school. Can you please tell me if you feel this way MOST OF THE TIME, SOMETIMES, OR NEVER? I have these cards here to help you remember the three different answers.

		Most of the time	Sometimes	Never
a	Do you enjoy being at school?			
b	Do you have fun when you're at school?			
c	Do you feel comfortable when you're at school?			
d	Do you feel like you belong at this school?			

4. There are people from all over the world who go to your school. How do you feel about going to school with people from all over the world?

5. What do you usually do during yard time?

Section B: Classmates

Here is a list of all of the people in your class. I'm going to ask you some questions about the kids in your class and about different activities that you might do in school and outside of school. I'd like to know which classmates you do things with. You can use the list as a reminder. You can name as many people as you want.

I know that you might spend time with people who aren't in your class but for these questions, I'd only like to know about your classmates. If I list an activity that you do alone or with someone outside of your class, just tell me and we'll move on to the next question. I just want to remind you that I won't tell anyone your answers to these questions.

6. Who do you sit next to in class?

7. Who do you work with in class?

8. Who do you talk to during free time in class?

9. Who do you play with during free time in class?

10. Who do you eat lunch with?

11. Who do you play with at yard time?

12. Who do you walk to school with?

13. Do you invite friends from your class over to play at your house? If yes, who?

14. Do friends from class invite YOU to play over at THEIR house? If yes, who

15. Do friends from class invite YOU to sleep over at THEIR house? If yes, who

16. Do you play with friends from class outside in your neighbourhood? If yes, who?

17. Do you see kids from class at clubs or sports teams outside of school? If yes, who?

18. Do you talk on the phone with friends from class? If yes, who?

19. Who are your best friends in your class?

20. Some kids say mean things about other kids. Does anyone in your class say mean things about other kids? If yes, who?

21. Some kids leave other kids out of activities on purpose. Does anyone in your class leave other kids out on purpose? If yes, who?

22. Some kids start fights with other kids. Does anyone in the class start fights with other kids? If yes, who?

23. Some kids push or hit other kids in a mean way. Does anyone in your class push or hit other kids in a mean way? If yes, who?

24. Some kids get talked about in a mean way. Does anyone in the class get talked about in a mean way? If yes, who?

25. Some kids get left out of games or activities on purpose. Does anyone in the class get left out of games or activities on purpose? If yes, who?

26. Some kids get hit, kicked, or pushed around by other kids. Does anyone in the class get hit or pushed around by other kids? If yes, who?

27. Some kids get picked on a lot. Does anyone in the class get picked on a lot? If yes, who?

28. Some kids always seem to play by themselves. Does anyone in the class always play by him or herself? If yes, who?

Section C: Contact Scale

For these next questions, I'm going to give you a few situations. I'd like you to think about how often do you do these things with someone who was born in Ireland.

		Every day	A few times a week	A few times a month	About once a month	Almost never
29	Talk in school?					
30	Work together in school?					
31	Play together in school?					
32	Play together on the yard?					
33	Play sports?					
34	Talk outside of school?					
35	Play together outside of school?					
36	Talk on the phone or text?					
37	Invite over to your house?					
38	Visit their house?					

For these next questions, I'm going to give you a few situations. I'd like you to think about how often you do these things with someone who was born outside of Ireland.

		Every day	A few times a week	A few times a month	About once a month	Almost never
39	Talk in school?					
40	Work together in school?					
41	Play together in school?					
42	Play together on the yard?					
43	Play sports?					
44	Talk outside of school?					
45	Play together outside of school?					
46	Talk on the phone or text?					
47	Invite over to your house?					
48	Visit their house?					

49. Do you have any best friends who are from another country? If yes, how many?

50. Do you have any best friends who are Irish? If yes, how many?

Section D: Getting Picked On & Picking on Others

Sometimes kids get picked on at school and sometimes kids pick on other kids at school. The next few questions will ask you about getting picked on and picking on others. If you want to take a break or stop at any time, remember that it's ok with me. Just let me know.

51. Over the past month, have you picked on other kids at school? This could be by yourself or part of a group.

Yes

No

If you answered yes: In the last month, how often did you :

		Many times	A few times	Never
a	Push, hit, or trip someone?			
b	Left someone out of the group?			
c	Called you someone bad names or teased them?			
d	Break or steal something that belonged to someone?			
e	Spread bad rumors or told lies about someone?			
f	Said mean things to someone?			

51 CONT: Over the past month, how often did you pick on someone or give out to someone because of:

		Many times	A few times	Never
g	Where they were born?			
h	Their religion?			
i	The colour of their skin?			
j	The clothes that they wear?			
k	Their accent?			
l	The neighborhood they live in?			

52. In the past month, have you been picked on by other kids at school?

Yes

No.

If you answered yes - How often have other kids:

		Many times	A few times	Never
a	Pushed you, hit you, or tripped you			
b	Left you out of the group			
c	Called you bad names or teased you			
d	Broken or stole something that belonged to you			
e	Spread bad rumours or told lies about you			
f	Said mean things to you			

How often do you think you've been picked on because of the following reasons?

		Many times	A few times	Never
g	Where you or your parents were born?			
h	Your religion?			
i	The colour of your skin?			
j	The clothes that you wear?			
k	Your accent?			
l	The neighbourhood you live in?			

m) Last time you got picked on, what did you do?

n) Why did you respond that way?

Now I'm going to ask some questions about other kids. I'd like you to think about your classmates and other kids at your school

53. In the past month, have you seen other kids getting picked on at school?

Yes

No.

If Yes - How often did you see or hear about other kids getting:

		Many times	A few times	Never
a	Pushed you, hit you, or tripped you			
b	Left you out of the group			
c	Called you bad names or teased you			
d	Broken or stole something that belonged to you			
e	Spread bad rumours or told lies about you			
f	Said mean things to you			

How often did you see or hear about other kids get picked on because of:

		Many times	A few times	Never
g	Where you or your parents were born?			
h	Your religion?			
i	The colour of your skin?			
j	The clothes that you wear?			
k	Your accent?			
l	The neighbourhood you live in?			

m) Last time you this happened, what did you do?

54. Where do kids get picked on in school?

55. When do kids get picked on at school? You can list as many times as you'd like.

Section D: Neighbourhood

56. Now I'd like to ask some questions about your neighbourhood. Please tell me if you feel this way Most of the time, Sometimes, or Never. I'm putting these cards here to help you remember the possible answers.

		Most of the Time	Sometimes	Never
a	Do you feel safe in your neighbourhood?			
b	Do you like your neighbourhood?			
c	Do you play with other kids in your neighbourhood?			
d	Do you feel like you belong in your neighbourhood?			
e	Do you play outside in your neighbourhood?			

57. Do you have friends who live in your neighbourhood?

Yes

No.

IF YES:

a) How many friends do you have in your neighbourhood? _____

b) How would you describe the friends that you have in your neighbourhood?

All Born in Ireland	Most Born in Ireland	Half born in Ireland, Half born outside of Ireland	Most born outside of Ireland	All born outside of Ireland

58. I'd like you to think about the people who live in your neighbourhood.

All Born in Ireland	Most Born in Ireland	Half born in Ireland, Half born outside of Ireland	Most born outside of Ireland	All born outside of Ireland

Section F: Children's Attitudes Towards Migrants Scale

The next few questions are about people who to move to Ireland from different countries.

59. Does your family ever talk about people who move to Ireland from different countries at home?

Yes

No

So for the next few questions, I'd like you think if you feel that these sentences are true most of the time, sometimes, or not true.

60. (Migrants) are different from Irish people

True most of the time

True sometimes

Not true

61. (Migrants) are smart.

True most of the time

True sometimes

Not true

62. (Migrants) are friendly.

True most of the time

True sometimes

Not true

63. (Migrants) take money off Irish people.

True most of the time

True sometimes

Not true

64. (Migrants) are hard working.

- True most of the time
- True sometimes
- Not true

65. (Migrants) make Ireland a more dangerous place to live.

- True most of the time
- True sometimes
- Not true

66. (Migrants) take jobs off Irish people.

- True most of the time
- True sometimes
- Not true

67. (Migrants) make Ireland a better place to live.

- True most of the time
- True sometimes
- Not true

68. (Migrants) make Ireland a more dangerous place to live.

- True most of the time
- True sometimes
- Not true

69. (Migrants) are from poor countries.

- True most of the time
- True sometimes
- Not true

70. (Migrants) aren't very nice.

- True most of the time
- True sometimes
- Not true

71. Some people get upset when people move to Ireland from other countries. Have you heard about this?

- Yes
- No.

If yes:

Where did you hear about this?

- Television
- Newspaper
- At home
- In school
- From friends
- From my neighbours

72. Why do you think people want to move to Ireland from other countries?

Section F: Discrimination & Difficulties Scale

I'm going to ask you some questions about situations and I'd like you think if you've ever been treated this way because of the colour of your skin, your language, your accent, or the where you were born.

	YES or NO	IF "YES" – HOW OFTEN
73. Been stared at when you were out in public?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
74. Had someone tell you that you didn't belong?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
75. Had someone call you an insulting name?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
76. Had someone tease you for not knowing about a TV show, movie, or pop star?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always

77. Felt like someone was uncomfortable being around you?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
78. Been embarrassed to go out in public because of the colour of your skin or your accent?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
79. Been excluded from activities, games, or clubs?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
80. Been teased or slagged about your skin colour, your accent, or the country you were born in?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
81. Had someone make jokes about you that hurt your feelings?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always
82. Been treated badly when you were out at a shop or a restaurant?	<input type="checkbox"/> Yes <input type="checkbox"/> No.	<input type="checkbox"/> Once <input type="checkbox"/> Sometimes <input type="checkbox"/> Most of the time <input type="checkbox"/> Always

Section G: Free Time Activities

Now I'd like to ask you about what you do in your free time.

83. Do you go to any after-school clubs, sports, or programs?

- Yes
 No.

IF YES:

a) What kind of activity or club is it?

b) How would you describe the other kids at the program?

All Born in Ireland	Most Born in Ireland	Half born in Ireland, Half born outside of Ireland	Most born outside of Ireland	All born outside of Ireland

84. What are some of your favorite things to do in your free time?

85. Who do you like to do these things with?

Section F: Family

Now I'd like to ask you some questions about you and about your family.

86. How old are you? _____

87. Do you have brothers and sisters?

Yes

No.

87a) If yes, how many? _____

87b) What are their ages? _____

88. Is your family religious?

Yes

No.

IF YES: What religion? _____

89. Were you born in Ireland?

Yes

No.

IF NO:

89a) Where were you born? _____

89b) When did you move to Ireland? _____

90. Were both of your parents born in Ireland?

Yes

No.

IF NO:

a) Where were your parents born? _____

91. What language do you speak at home? _____

92. What is your favorite thing to do with your family?

That's the end of this part of the survey. Thank you very much for taking the time to come talk with me and answer these questions!

MANY TIMES



A FEW TIMES



NEVER



PLEASE CHOOSE ONE:

ALL born in
Ireland

MOST born
in Ireland

EQUAL
numbers born
in Ireland and
in another
country

MOST born
in another
country

ALL born in
another
country

PLEASE CHOOSE ONE:

EVERYDAY

A FEW
times a
WEEK

A FEW times
a MONTH

About ONCE
a MONTH

NEVER

STUDENT SURVEY

INSTRUCTIONS:

Thank you for taking the time to fill in this survey!

This survey will ask you questions about your school, your friends, your classmates, your family and your feelings about some things.

This is not a test and there are no "right" or "wrong" answers. Just try to be as honest as you can. I won't share your answers with anyone else.

If you don't want to take this survey, that's ok! You can stop at any time.

Also, if you have any questions, just raise your hand and I'll come talk with you.

Thanks for helping me learn more about kids in Ireland!

Sample Question: This survey will have questions with possible answers below. Please put a check in the box that best describes you!

Are you a boy or a girl?

Boy

Girl

Part 1: School

1. What class are you in? _____

2. When did you start going to this school?

- Junior Infants
- Senior Infants
- 1st Class
- 2nd Class
- 3rd Class
- 4th Class



3. Do you enjoy school?

- Most of the time
- Sometimes
- Never

4. Do you have fun at school?

- Most of the time
- Sometimes
- Never



5. Do you feel happy at school?

- Most of the time
- Sometimes
- Never

These next few questions are about things that may happen at school. Remember, there are no right or wrong answers. Just try to be honest in your answers!

6. How often do you pick on someone, tease someone, or slag someone for any of the following reasons:

Because of where they were born?

.....

Everyday About Once a Week About Once a Month Never

Because of their accent or the way they talk?

.....

Everyday About Once a Week About Once a Month Never

Because of their religion?

.....

Everyday About Once a Week About Once a Month Never

Because of the colour of their skin?

.....

Everyday About Once a Week About Once a Month Never

Because of how they look?

.....

Everyday About Once a Week About Once a Month Never

7. How often do other people pick on you, tease you, or slag you for any of the following reasons?

Because of where you were born?

.....

Everyday About Once a Week About Once a Month Never

Because of your accent or the way you talk?

.....

Everyday About Once a Week About Once a Month Never

Because of your religion?

.....

Everyday About Once a Week About Once a Month Never

Because of the colour of your skin?

.....

Everyday About Once a Week About Once a Month Never

Because of how you look?

.....

Everyday About Once a Week About Once a Month Never

8. How often do you see other kids getting picked on, teased, or slagged for any of the following reasons?

Because of where they were born?

.....

Everyday About Once a Week About Once a Month Never

Because of their accent or the way they talk?

.....

Everyday About Once a Week About Once a Month Never

Because of where their religion?

.....

Everyday About Once a Week About Once a Month Never

Because of the colour of their skin?

.....

Everyday About Once a Week About Once a Month Never

Because of how they look?

.....

Everyday About Once a Week About Once a Month Never

Part 2: Where you live

9. Do you like the area where you live?

Most of the time

Sometimes

Never

10. Do you feel safe in the area where you live?

Most of the time

Sometimes

Never

11. Do you play with other kids around where you live?

Most of the time

Sometimes

Never

12. About how many friends do you have who live in your area?

I don't have any friends in my area

I have one friend in my area

I have 2 or 3 friends in my area

I have 4 or 5 friends in my area

I have more than 5 friends in my area

Part 3: Being Treated Differently

14. Sometimes children are treated differently because of where they come from, the colour of their skin, their accent, or their religion. Below are some questions and I'd like you to think about if you've ever been treated this way.

Have you ever been stared at in public because the colour of your skin, your accent, your religion, or where you were born?

..........

Many Times

A Few Times

Never

Have you ever been treated badly because of the colour of your skin, your accent, your religion, or where you were born?

..........

Many Times

A Few Times

Never

Have you ever been teased for not knowing a TV show, pop star, or movie??

..........

Many Times

A Few Times

Never

Have you ever felt embarrassed because of the colour of your skin, your accent, your religion, or where you were born?

..........

Many Times

A Few Times

Never

Have you ever been called a bad name or teased because of the colour of your skin, your accent, your religion, or where you were born?

..........

Many Times

A Few Times

Never

Part 4: Where people are from

15. There are people from all over the world who live in Ireland. These next questions are about where your friends and your classmates were born.

Yes No

Do you know where your best friends were born?..........

Do you know where your best friends' parents
were born?

Do you know where your classmates were born?

Do you know where your classmates' parents
were born?

16. Do you have any best friends who were born in Ireland?

Yes

No

If yes, how many? _____

17. Do you have any best friends who were born outside of Ireland?

Yes

No

If yes, how many? _____

Where were they born? _____

18. Were you born in Ireland?

Yes

No

If no, where were you born? _____

How old were you when you moved to Ireland? _____

19. Was your mother born in Ireland?

Yes

No

If no, where was she born? _____

20. Was your father born in Ireland?

Yes

No

If no, where was he born? _____

Part 5: Who You Spend Time With

21. Below you will see a list of different activities. For each question, I want you to think about how often you do that thing with someone who was born in Ireland.

Talk together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Talk outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Invite over to your house?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play over at their house?

.....

Everyday A few times a week A few times a month About Once a Month Never

22. Now I want you to think about how often do you these activities with someone who was born outside of Ireland.

Talk together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together in school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Talk outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play together outside of school?

.....

Everyday A few times a week A few times a month About Once a Month Never

Invite over to your house?

.....

Everyday A few times a week A few times a month About Once a Month Never

Play over at their house?

.....

Everyday A few times a week A few times a month About Once a Month Never

Part 6: You and your family

23. How old are you? _____

24. Do you have any brothers and sisters?

Yes

No.

If yes, how many? _____

25. How often does your family go to church / mosque / synagogue?

Never

A few times a year.

About once a month

About once a week

More than once a week.

26: What is your religion?

Catholic

Christian

Muslim

Jewish

Hindu

Other: _____

27. If a magic genie came out of a bottle and gave you three wishes, what would you wish for?

28. Is there anything else that you'd like to share about yourself?

APPENDIX D: OUTCOME MEASURES

Part 7: Bullying Questionnaire

You will find questions in this survey about your life in school. There are several answers below each question. Each answer has a box in front of it. Like this:

1. How do you like school?

- I dislike school very much
- I dislike school
- I neither like nor dislike school
- I like school
- I like school very much.

Answer the question by marking an **X** in the box next to the answer that best describes how you feel about school. If you really dislike school, mark an **X** in the box next to "I dislike school very much". If you really like school, put an **X** in the box next to "I like school very much", and so on. Only mark one of the boxes. Try to keep the mark inside of the box. Now put an **X** in the box next to the answer that best describes how you feel about school. If you mark the wrong box, you can change your answer like this: make the wrong box completely black. Then put an **X** in the box where you want your answer to be.

Don't put your name on this sheet. No one will know how you have answered these questions. But it is important that you answer carefully and how you really feel.

Sometimes it is hard to decide what to answer. Then just answer how you think it is. If you have questions, please ask.

Now you can answer these questions:

2. Are you a boy or a girl?

Boy

Girl

3. How many good friends do you have in your class?

None

I have 1 good friend in my class

I have 2 good friends in my class

I have 3 or 4 good friends in my class

I have 5 or 6 good friends in my class

ABOUT BEING BULLIED BY OTHER STUDENTS

Here are some questions about being bullied by other pupils. First we define or explain the word bullying. We say a pupil is being bullied when another pupil, or several other pupils:

- say mean and hurtful things or make fun of him or her or call him or her mean and hurtful names
- completely ignore or leave him or her out from their group of friends or leave him or her out of things on purpose
- hit, kick, push, shove around, or lock him or her inside a room
- tell lies or spread false rumours about him or her or send mean notes and try to make other pupils dislike him or her
- and other hurtful things like that.

When we talk about bullying, these things happen repeatedly, and it is difficult for the pupil being bullied to defend himself or herself. We also call it bullying, when a pupil is teased repeatedly in a mean and hurtful way. But we don't call it bullying when the teasing is done in a friendly and playful way. Also, it is not bullying when two pupils of about equal strength or power argue or fight.

4. How often have you been bullied in the past couple of months?

- I haven't been bullied in school in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

Have you been bullied in school in the past couple of months in one or more of the following ways? Please answer all questions.

5. I was called mean names, made fun of or teased in a mean way

- I haven't been bullied in school in the past couple of month
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

6. Other students left me out of things on purpose, left me out of their group of friends, or completely ignored me.

- I haven't been bullied in school in the past couple of month
- It has only happened once or twice
- 2 or 3 times a month

- About once a week
- Several times a week

7. I was hit, kicked, shoved, pushed around, or locked indoors.

- I haven't been bullied in school in the past couple of month
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

8. I was bullied with mean names or comments about my race or the color of my skin.

- I haven't been bullied in school in the past couple of month
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

9. In which class(es) are the students who bully you?

- It have not been bullied at school in the past couple of months
- In my class
- In a different class but in my year
- In a higher grade
- In a lower grade
- In higher and lower grades

10. **How long** has the bullying lasted?

- It have not been bullied at school in the past couple of months
- It lasted about 1 or 2 weeks
- It lasted about a month
- It lasted about 6 months
- It lasted about a year
- It lasted several years

11. **Where** have you been bullied?

- It have not been bullied at school in the past couple of months
- I have been bullied in **one more of the following places:**

Please check the boxes for all the places where you have been bullied:

- 11a. On the playground / athletic field
- 11b. In the hallways / stairwells.
- 11c. In class (when the teacher was in the room)
- 11d. In class (when the teacher was not in the room)
- 11e. In the toilets.
- 11f. In gym class or the gym locker room.
- 11g. In the lunchroom
- 11h. On the way to and from school.

12. **Have you told anyone** that you have been bullied?

- It have not been bullied at school in the past couple of months
- I have been bullied **but I have not told anyone.**
- I have been bullied **but I have told somebody.**

Please check the boxes for all the people you have told:

- 12a. Your teacher
- 12b. Another adult at school
- 12c. Your parent(s) / guardian(s)
- 12d. Your brother(s) / sister(s)
- 12e. Your friend(s)
- 12f. Somebody else

About bullying other students

13. How often have you **taken part in bullying other students** over the past couple of months?

- I have not bullied another student(s) at school in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

Have you bullied another student(s) at school in the past couple of months in one or more of the following ways:

14. I called another student(s) mean names and fun or teased them in hurtful ways

- It has not happened in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

15. I kept him or her out of things on purpose, excluded him or her from my group of friends or completely ignored him or her.

- It has not happened in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

16. I hit, kicked, pushed, and shoved him or her around or locked him or her indoors.

- It has not happened in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

17. I bullied him or her with mean names or comments about his or her race or skin colour.

- It has not happened in the past couple of months
- It has only happened once or twice
- 2 or 3 times a month
- About once a week
- Several times a week

18. Do you think you could join in bullying a student you don't like?

- Yes
- Yes, maybe
- I do not know
- No, I don't think so.
- No
- Definitely no.

19. How do you usually react if you see or learn that a student your age is being bullied?

- I have never noticed students my age have been bullied.
- I take part in the bullying
- I do not do anything, I think the bullying is ok.
- I just watch what goes on
- I don't do anything but I think I ought to help the bullied student
- I try to help the bullied student in one way or another.

20. How often are you afraid of being bullied by other students in your school?

- Never
- Seldom
- Sometimes
- Fairly often
- Often
- Very often

Part 8: About You

Directions:

Here are some sentences that tell how some people feel about themselves. Read each sentence and decide whether it tells the way you feel about yourself. If it is true or mostly true for you, check the word *yes* next below the statement. If it is false or mostly false for you, check the word *no*. Answer every question, even if some are hard to decide. Do not check both *yes* and *no* for the same sentence. Remember that there are no right or wrong answers. Only you can tell us how you feel about yourself, so we hope you will mark each sentence the way you really feel inside.

1. My classmates make fun of me

Yes

No.

2. I am a happy person

Yes

No.

3. It is hard for me to make friends

Yes

No.

4. I am often sad

Yes

No.

5. I am smart

Yes

No.

6. I am shy

Yes

No.

7. I get nervous when the teacher calls on me

Yes

No.

8. My looks bother me

Yes

No.

9. I am a leader in games and sports

Yes

No.

10. I get worried when we have tests in school

Yes

No.

11. I am unpopular

Yes

No.

12. I am well behaved in school

Yes

No.

13. It is usually my fault when something goes wrong

Yes

No.

14. I cause trouble to my family

Yes

No.

15. I am strong

Yes

No.

16. I am an important member of my family

Yes

No.

17. I give up easily

Yes

No.

18. I am good in my schoolwork

Yes

No.

19. I do many bad things

Yes

No.

20. I behave badly at home

Yes

No.

21. I am slow in finishing my schoolwork

Yes

No.

22. I am an important member of my class

Yes

No.

23. I am nervous

Yes

No.

24. I can give a good report in front of the class

Yes

No.

25. In school I am a dreamer

Yes

No.

26. My friends like my ideas

Yes

No.

27. I often get into trouble

Yes

No.

28. I am lucky

Yes

No.

29. I worry a lot

Yes

No.

30. My parents expect too much of me

Yes

No.

31. I like being the way I am

Yes

No.

32. I feel left out of things

Yes

No.

33. I have nice hair

Yes

No.

34. I often volunteer in school

Yes

No.

35. I wish I were different

Yes

No.

36. I hate school

Yes

No.

37. I am among the last to be chosen for games and sports

Yes

No.

38. I am often mean to other people

Yes

No.

39. My classmates in school think that I have good ideas

Yes

No.

40. I am unhappy

Yes

No.

41. I have many friends

Yes

No.

42. I am cheerful

Yes

No.

43. I am dumb about most things

Yes

No.

44. I am good-looking

Yes

No.

45. I get into a lot of fights

Yes

No.

46. I am popular with boys

Yes

No.

47. People pick on me

Yes

No.

48. My family is disappointed in me

Yes

No

49. I have a pleasant face

Yes

No.

50. When I grow up, I will be an important person

Yes

No.

51. In games and sports, I watch instead of play

Yes

No.

52. I forget what I learn

Yes

No.

53. I am easy to get along with

Yes

No.

54. I am popular with girls

Yes

No.

55. I am a good reader

Yes

No.

56. I am often afraid

Yes

No.

57. I am different from other people

Yes

No.

58. I think bad thoughts

Yes

No.

59. I cry easily

Yes

No.

60. I am a good person

Yes

No.

Please read these statements and tick the answer that best describes how you've felt in the **past week**. Please answer as honestly as you can. The correct answer is to say how you really have felt.

		Mostly	Sometimes	Never
1	I look forward to things as much as I used to.			
2	I sleep very well.			
3	I feel like crying.			
4	I like to go out and play.			
5	I feel like running away.			
6.	I get tummy aches			
7.	I have lots of energy			
8.	I enjoy my food.			
9.	I can stick up for myself.			
10.	I think life isn't worth living.			
11.	I am good at the things I do.			
12.	I enjoy the things I do as much as I used to.			
13.	I like talking with my family.			
14.	I have bad dreams.			
15.	I feel very lonely.			
16.	I am easily cheered up.			
17.	I feel so sad I can hardly stand it.			
18.	I feel very bored.			

APPENDIX E: CHILD INFORMATION SHEET AND CONSENT FORM

Hello,

My name is Kate and I am a student at Trinity College in Dublin. I am trying to learn more about how kids from different backgrounds get on with each other. To do this, I'm looking talking to kids from schools all over Ireland. I have chosen your classrooms as one of the classrooms to study. This sheet will give you some more information about the study. If you have any questions, please ask!

Why was our class chosen?

I'm talking to children who are in primary school, mostly kids who are between the ages of 8 and 11. I want to find out how kids from different backgrounds get on with each other. Your school has kids from different backgrounds, so I think I could learn a lot from talking to you.

Why do you want to know more about us?

I'm hoping that this project will give me a good idea of what it's really like for kids in primary school today. Sometimes it's hard for adults to know how kids really feel, what they like to do, and how they get on with each other. I want to listen to what you really think about things. This is really important because it can help the government, teachers, principals, and parents make decisions that can help make life better for children.

What happens if I take part?

Here is what will happen if you decide to take part in the project:

- I will ask you to sign a sheet that says that you are OK with taking part in the study. I will also ask you to bring a sheet home for your

parent or guardian to sign, too. I want to make sure that they are OK with you taking part in the study, too.

- I will be visit your classroom sometime in the next week. At that point, I will ask you to complete a survey that will ask you questions about your life, your friends, your family, your neighborhood, your classmates, and your opinions on things. It will also ask questions about how you get on with other kids in the class and what you think about people from different backgrounds. There are no right or wrong answers and it is not a test.
- It is important for you to know that I will not tell your answers to anybody. I just want to know more about you and what you really think. The most important thing is that you try to tell the truth.

Do I have to?

Not at all! It is totally up to you to decide if you want to be a part of project. If you decide that you don't want to take part, that's OK with me. Also, if you do decide to take part, you can choose not to answer any questions that you don't like.

I want to take part. What next?

Go home and talk to your parents or guardians about the study. Then fill out the forms and bring them back to your teacher.

Please let me know if you have any questions! You can call me or email me if you do.

018962916 or babineak@tcd.ie

I look forward to talk with you more in the coming weeks!

Participant Consent Form

My Name Is: _____

I go to school at: _____

My teacher's name is: _____

My Class is: _____

- ❖ I want to take part in the project.
- ❖ I have talked to my parents or guardian about taking part in the study.
- ❖ I have read the information sheet and I understand what the project is all about.
- ❖ I understand that I will be asked questions about my life, my friends, my family, my interests, and my feelings about certain things.
- ❖ I know that this is not a test and there are no right or wrong answers.
- ❖ I know that I can stop taking part at any time. I know that I can skip any questions that I don't want to answer.
- ❖ If I have any questions, I know that I can talk to the researcher. If I have any ideas about the project, I know that I can talk to the researcher.
- ❖ I feel comfortable talking to the researcher.

My Signature: _____

Today's Date: _____

APPENDIX F: PARENTAL INTRODUCTORY LETTER, INFORMATION SHEET, AND CONSENT FORM

Dear Parent / Guardian,

My name is Kate Babineau and I am a PhD student based in the Children's Research Centre at Trinity College in Dublin. I am writing to you about my research, which I will be conducting in your child's school over the next few weeks. I would like to ask permission for your child to be a part of this project.

Attached to this letter you will find an information sheet providing detailed information about the project and a consent form. In short, I am designing a new survey to measure how children from different ethnic and cultural backgrounds interact with each other. To do this, I will be asking children to complete a questionnaire during class time.

If you are comfortable with your child taking part in the study, please sign and return the attached consent form to your child's teacher.

If you have any questions or concerns, please contact me either by phone or by email: 018962901 or babineak@tcd.ie

Thank you in advance for your support and help.

Sincerely,

Kate Babineau

PhD Candidate

Trinity College Dublin

Parental Information Sheet

What is this study about?

I am in the early stages of developing a survey about how children from diverse ethnic backgrounds interact. The purpose of this study is to develop a questionnaire that accurately measures how children from different backgrounds interrelate and also what might influence these interactions.

Why is this study important?

In order to understand how children get along, it is important to talk to children directly about their experiences and their opinions. In gaining a wider perspective on children's inter-ethnic relations, it is possible to develop policies and strategies that will make children's social and academic lives richer and more productive.

Why was my child's school selected?

The study is looking at how children from different ethnic and cultural backgrounds interact and get on. Your child attends an ethnically diverse primary school, which provides an ideal location for looking at these interactions in more detail.

What does participation involve?

If you and your child choose to get involved, your child will be asked to complete a questionnaire during class time. The survey includes questions on your child's peer relations, school, neighbourhood, experiences with discrimination, and inter-ethnic contact. It also includes questions on bullying, the Depression Self-Rating Scale for Children (DSRS), and the Piers-Harris Self-Concept Scale. The DSRS and the Piers-Harris scales have been used in research studies with children both nationally and internationally. The survey will take approximately 60 minutes for your child to complete.

Does my child have to participate?

Absolutely not. Participation is 100% voluntary. No child will be included in any stage of the research unless they have given consent and their parents have given consent. Both children and parents can revoke consent at any stage of the research.

Confidentiality

All information that is gathered in this study remains 100% confidential. Your child's information will be stored in a secure computer that is only used by members of the research team. No one will have access to the information gathered in this study aside from the researchers and it will only be used for research purposes. There will be no identifiable information stored in the computer at any stage during this research.

Who is conducting this study?

My name is Kate Babineau and I am a PhD student based in the Children's Research Centre at Trinity College in Dublin. Prior to starting my PhD, I was a primary school teacher in New Orleans in the United States. It is my background in education that sparked my interest in children's peer relationships. I receive funding for this project from the Trinity Immigration Initiative.

If you have any questions or concerns, I would be happy to discuss them with you. My phone number is 018962901 and my email address is babineak@tcd.ie. Please don't hesitate to contact me.

How do I give my consent?

The next step in the process is to read and sign the consent form that is contained in this envelope. After doing so, please return the consent form to your child's teacher.

I'd like to thank you in advance for your participation and support. It is through research that we are able to learn about children's lives and understand how to improve the future for all children and families in Ireland and abroad. Without parents' time and consent, studies like this would be unable to proceed.

Thank you for your time and your assistance.

Parental / Guardian Consent Form

Child's Name: _____ Child's Class: _____

Child's School: _____

- ❖ I have read and understood the information sheet provided.
- ❖ I consent to my child taking part in the present research study.
- ❖ I understand that my child will take part in a classroom-based survey. The survey will be conducted in my child's school by a researcher who has received Garda Vetting clearance.
- ❖ I understand that my child's information will be collected and stored, confidentially, in a computer that is used for research purposes.
- ❖ I understand that my child's participation in this study is completely voluntarily and he/she can withdraw from the study at any time.
- ❖ I understand that I can withdraw consent for my child to participate in this study at any time.

Parent / Guardian's Name: _____

Parent / Guardian's Signature: _____

Date: _____

APPENDIX G: MISSING DATA TREATMENT

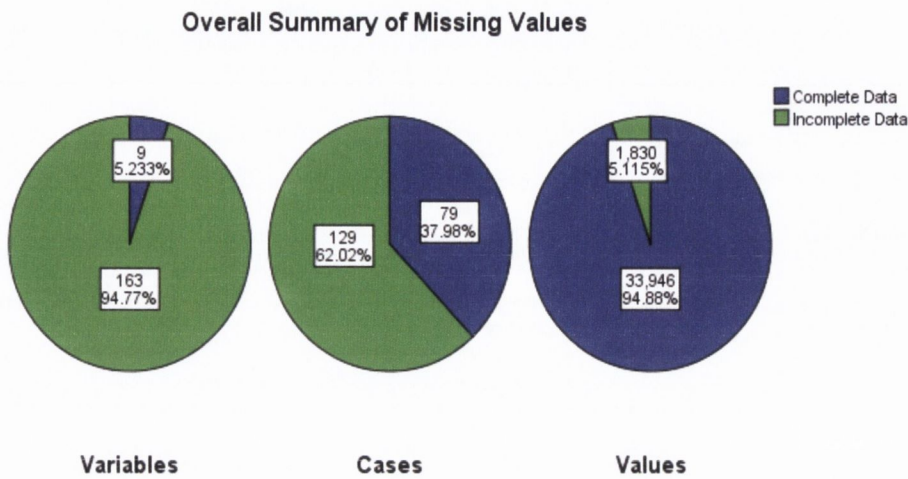
Missing data is common in quantitative research, particularly when administering lengthy pilot surveys. This presents a problem for researchers and can lead to bias, skewed, or misrepresented findings. Despite the serious implications of mistreating missing data, few quantitative studies provide detailed accounts of their approaches (Allison, 2001; McKnight, McKnight, Sidani, & Figueredo, 2007). This section will address the nature of missing data in the current study and provide a rationale for and description of the data treatments employed.

When designing and testing a new measure, there is an increased risk of missing data due to the lengthy and comprehensive nature of pilot instruments. Research repeatedly demonstrates that missing data rates increase with the length of a pen and paper survey due to respondent fatigue (McKnight et al., 2007). This is particularly true when administering long quantitative measures to children, as they tend to have shorter attention spans than adults (Scott, 2000b; Solberg & Olweus, 2003). Given the nature of this research, there was no way to minimize the length of the measure. Instead, precautions were put in place while designing and administering the survey to circumvent missing data, including making the measure 'child-friendly' in terms of presentation, allowing bathroom and water breaks, and administering the test orally to the class.

There is no definitive, 'best practice' way to approach missing data. Appropriate treatment of missing data is dependent on the type of missing data, the size of the sample, the nature of the variables, and the content of the research.⁴² The current project approached the treatment first by conducting Expectation Maximization (EM) and Missing Value Analyses (MVA) of the data to get an overview of the missing data. Tests demonstrated that nearly all of the variables had at least one missing case. 94.77% of variables included missing data. While this percentage is high, it is common to experience higher levels of missing data when surveying children. More than half of cases had at least one missing variables (62.02%). However, the total missing data came to only 5.12%.

⁴² For a comprehensive theoretical and technical discussion of missing data, refer to (Longford, 2005)

Below are pie charts for missing data as generated by SPSS:



The preliminary tests also revealed that 12 cases included more than 50% of missing data. Cases with very high percentages of missing data can be removed from the dataset, as many imputation and data treatment methods would produce bias results under these conditions. It was decided to remove these cases from the dataset rather than attempt treating or imputation. Of the 12 deleted cases, six were from the same 2nd class classroom. This indicates that there may have been an administration issues in this particular classroom.

When administering the survey in this class, many students complained about the length of the survey and the time needed to complete the survey. Several students asked if they could “stop” the survey after they had been working on it for a length of time. Adhering to the ethical guidelines established prior to entering the field, children were told that they could stop the survey at any stage. A few students stopped and proceeded to work on other school work at their desk. It is likely that many of these students failed to complete the survey because of respondent fatigue or because the content of the survey was inappropriate for their age group. This issue and other administration issues are discussed in the methodology chapter.⁴³

⁴³ Also of note, 8 out of the 12 deleted respondents were male.

A table of deleted cases is presented below:

Respondent ID	Gender	Class	# of Missing Responses	% of Missing Responses
S04C1R04	M	2 nd	107	58.2%
S04C1R23	M	2 nd	117	63.6%
S04C1R30	M	2 nd	118	64.1%
S04C1R27	M	2 nd	135	73.4%
S04C1R09	F	2 nd	151	82.1%
S04C1R20	F	2 nd	153	83.2%
S01C1R18	M	3 rd	115	62.5%
S02C1R21	M	3 rd	116	63.0%
S01C1R08	M	3 rd	116	63.0%
S02C1R07	M	3 rd	118	64.1%
S03C1R04	F	4 th	119	64.7%
S03C1R08	F	4 th	120	65.2%

Individual items were then examined to determine which variables contained the most amount of missing data. Out of the 50 variables with the highest percentages of missing data, 48 of them are from the Olweus Bullying Questionnaire, the Piers Harris test, and the Depression Index outcome measures. These were the last three scales included in the packet, further indicating that respondents may have been suffering from fatigue as they completed the survey.

Notably, there are two questions with high levels of missing data from the new measure: *How many of your friends were born in Ireland?* (13% missing) and *How many of your best friends were born outside of Ireland?* (12% missing). The relatively high level of missing data on these two variables is most likely a result of the questions themselves. These were conditional, follow-up questions to the question “*Do you have any best friends who were born in Ireland?*” and “*Do you have any best friends who were born outside of Ireland?*” Children who indicated that they did not have any friends born in either of these locations left the question blank and it was coded as ‘missing’.

After exploring frequencies, correlations, and descriptive with the missing data, it was time to establish a treatment strategy. Prior to developing a data treatment strategy for the new measure, missing data from the existing scales were treated according to standardized recommendations by the scales developers. However, out of the three standardized scales used in the pilot, only one contained instructions on how to approach missing data: The Piers Harris scale.

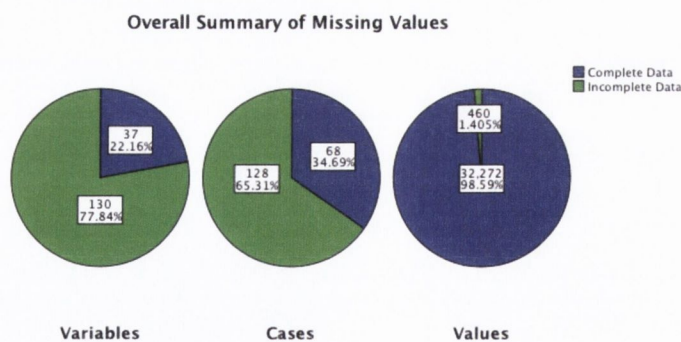
Missing Data: Piers Harris Questionnaire

The Piers Harris instruction manual includes a section on the recommended treatment of missing data for the instrument. Given that it is a widely used and validated measure, it was

decided that missing data from the Piers Harris instrument would be treated by the developer's recommended guidelines. The recommended strategy is best explained by the manual itself:

Invalid responses (those with no response marked or both yes and no marked) are not included in the calculation of the Piers Harris 2 raw scores, on the assumption that children may omit responses or mark both response choices because they feel embarrassed about endorsing low self-concept responses. If the invalid responses were completed in the direction of low self-concept, they would be scored '0' and would not contribute to the raw scores. Thus, excluding invalid responses from the raw scores is considered the best way to approximate what the scores would be if the child were to complete all the items properly. Nevertheless, there is a limit to how many invalid responses there can be before the entire Piers Harris 2 protocol becomes invalid. As a rule, you should not proceed with scoring and interpreting the protocol if it contains seven or more invalid responses. In addition, any domain scale that contains three or more invalid responses should not be scores or interpreted. (Piers, 2002)

The Piers Harris missing data was treated as recommended by the developer. Per instruction, cases with more than seven invalid responses were not included in the final analysis. There were four cases that met the criteria. After removing the 12 extreme cases and treating the Piers Harris data, I reran the MVA to determine the modified missing data values. As the table below demonstrates, the total amount of missing data was greatly reduced to 1.40% after treating the Piers Harris data. The top five variables with the highest amount of missing data remain the same.



The remaining missing data was then tested to determine what 'type' of missing data that was present so that we could proceed with further treatment: missing completely at random (MCAR), missing at random (MAR), or missing not at random (MNAR) (Allison, 2001; R. J. A. Little & Rubin, 2002; Mallinckrodt, 2013). The 'type' of missing data informs the statistical treatment that will be employed. There is one widely accepted formal method for testing for the MCAR assumption: The Little test (Roderick J. A. Little, 1988; R. J. A. Little & Rubin, 2002;

McKnight et al., 2007). The MCAR test compares the observed variable means for each pattern of missing values and compares them with estimated population values and creates an overall, weighted, square deviation (McKnight et al., 2007).

When conducted on the entire dataset including outcome measures, Little's MCAR test rejected the hypothesis that the data was not missing completely at random (Chi Squared = 2737.34, DF = 2708, Sig. = .342), which means that imputation strategies for MCAR data are appropriate for use with this data set. When conducted on only the new measure, Little's MCAR test also accepted that the data was classifiable as MCAR (Chi Squared = 444.651, DF = 461, Sig. = .699). When conducted on the OBVQ questionnaire, the MCAR hypothesis could be rejected, suggesting that this subscale can also be qualified as MCAR (Chi Squared = 57.57, DF = 53, Sig. = .305). When conducted on the DSC subscale, Little's Test indicated that in this measure, the data was also MCAR (Chi Squared = 89.39, DF = 90, Sig. = .498). Among the data from the new measure, the total amount of missing data was minimal (0.7%) so it was decided that no imputation method would be used for these scales. This will preserve the integrity of the scale and avoid the potential for bias in the analysis of the new measure.

Missing data was treated at the subscale level with both the Olweus BVQ questionnaire and the Children's Depression Self Report Scale. Given the nature of the missing data and the size of the sample, it was determined that a Maximum Likelihood (ML) method would be most suitable for treating the data. Research indicates that ML is among the most reliable treatments of missing data for quantitative studies with small sample sizes (Gold & Bentler, 2000; Peyre, Lepège, & Coste, 2011). An imputation algorithm known as Expectation Maximization (EM) was used to treat the missing data. The EM algorithm generates estimated values for missing data by combining complete-data analysis with estimation of sufficient statistics (Longford, 2005; Musil, Warner, Yobas, & Jones, 2002). It does this by relying on expectation (E-step) and maximization (M-step) algorithms. The E-step calculates predicted values based on the complete data while the M-step replaces missing values with the E-step predicted values and then re-computes new expected values. Psychometricians argue that EM produces unbiased parameter estimates for MCAR data and has been proven to be superior to many other methods of data treatment including listwise deletion, pairwise deletion, regression, and means imputation (Musil et al., 2002). Limitations of EM include the potential for underestimated range of scores and standard deviations (Allison, 2001; Baraldi & Enders, 2010).

APPENDIX H: SYNTAX FOR MOKKEN ANALYSES IN R

First, install mokken package

```
>library(mokken)
```

```
>data = read.csv("F:\\contact.csv")
```

```
### Begin by assessing the overall scalability and factors in  
Contact Scale using AISP
```

```
> contactall <- data[, 1:12]
```

```
>
```

```
> scaleall <- aisp(contactall, verbose = FALSE)
```

```
> scaleall
```

```
          Scale  
ContactI1    2  
ContactI2    2  
ContactI3    2  
ContactI4    2  
ContactI5    2  
ContactI6    2  
ContactF1    1  
ContactF2    1  
ContactF3    1  
ContactF4    1  
ContactF5    1  
ContactF6    1
```

```
### The above shows that there are two separate factors loading -  
scale 1 and 2
```

```
####Compute scalability coefficients Hij, Hi, and H for Contact  
Scale 1 (Contact with Irish Born Children)
```

```
> contact1 <- data[, 1:6]
```

```
> coefficients <- coefH(contact1)
```

```
> coefficients$Hij
```

	ContactI1	se	ContactI2	se	ContactI3	se
ContactI1			0.703	(0.081)	0.587	(0.091)
ContactI2	0.703	(0.081)			0.531	(0.087)
ContactI3	0.587	(0.091)	0.531	(0.087)		

```

ContactI4 0.404 (0.131) 0.402 (0.094) 0.719 (0.053)
ContactI5 0.069 (0.188) 0.300 (0.134) 0.498 (0.073)
Contact16 0.302 (0.152) 0.450 (0.099) 0.536 (0.068)
          ContactI4 se      ContactI5 se      Contact16 se
ContactI1 0.404 (0.131) 0.069 (0.188) 0.302 (0.152)
ContactI2 0.402 (0.094) 0.300 (0.134) 0.450 (0.099)
ContactI3 0.719 (0.053) 0.498 (0.073) 0.536 (0.068)
ContactI4          0.557 (0.063) 0.572 (0.059)
ContactI5 0.557 (0.063)          0.793 (0.044)
Contact16 0.572 (0.059) 0.793 (0.044)

```

```
#### Calculate only the item scalability coefficients for Contact1
```

```

> coefficients$Hi
      Item H se
ContactI1 0.456 (0.096)
ContactI2 0.477 (0.075)
ContactI3 0.581 (0.043)
ContactI4 0.559 (0.047)
ContactI5 0.547 (0.062)
Contact16 0.595 (0.048)

```

```
###Extract and round coefficients to two integers. Extract H.
```

```

> coefficients$H
Scale H se
      0.547 (0.048)

```

```
# Investigate the assumption of monotonicity for Contact1
```

```

> monotonicity.list <- check.monotonicity(contact1)
> summary(monotonicity.list)

```

```

      ItemH #ac #vi #vi/#ac maxvi sum sum/#ac zmax #zsig crit
ContactI1 0.46 3 0 0 0 0 0 0 0 0
ContactI2 0.48 4 0 0 0 0 0 0 0 0
ContactI3 0.58 3 0 0 0 0 0 0 0 0
ContactI4 0.56 4 0 0 0 0 0 0 0 0
ContactI5 0.55 4 0 0 0 0 0 0 0 0
Contact16 0.59 4 0 0 0 0 0 0 0 0

```

```
# Makes plots of monotonicity for Contact 1
```

```
> plot(monotonicity.list)
```

```
# Investigate the assumption of IIO using method MII0 for Contact1
```

```

iio.list <- check.iio(contact1)
summary(iio.list)

$method
[1] "MII0"

$item.summary
      ItemH #ac #vi #vi/#ac maxvi sum sum/#ac tmax #tsig crit
ContactI1  0.46  5  0      0     0  0      0  0  0  0
ContactI2  0.48  5  0      0     0  0      0  0  0  0
ContactI3  0.58  5  0      0     0  0      0  0  0  0
ContactI4  0.56  5  0      0     0  0      0  0  0  0
Contact16  0.60  5  0      0     0  0      0  0  0  0
ContactI5  0.55  5  0      0     0  0      0  0  0  0

$backward.selection
      step 1
ContactI1  0
ContactI2  0
ContactI3  0
ContactI4  0
Contact16  0
ContactI5  0

$HT
[1] 0.7518454

# Plot IIO findings for Contact1

plot(iio.list)

# Compute the reliability of the scale using Cronbach's Alpha, MS,
and Lambda

check.reliability(contact1)

$MS
[1] 0.8676452

$alpha
[1] 0.803301

$lambda.2
[1] 0.8289746

```

Syntax for Mokken Scaling Analysis in R for Contact with Migrant Children Scale

```
### Sytnax Contact2#####
```

```
> contact2 <- data[, 17:22]
```

```
>
```

```
> coefficients <- coefH(contact2)
```

```
>
```

```
> coefficients$Hij
```

	ContactF1	se	ContactF2	se	ContactF3	se
ContactF1			0.799	(0.046)	0.614	(0.066)
ContactF2	0.799	(0.046)			0.613	(0.061)
ContactF3	0.614	(0.066)	0.613	(0.061)		
ContactF4	0.522	(0.079)	0.539	(0.071)	0.840	(0.031)
ContactF5	0.399	(0.097)	0.344	(0.099)	0.625	(0.053)
ContactF6	0.316	(0.101)	0.355	(0.091)	0.588	(0.056)

	ContactF4	se	ContactF5	se	ContactF6	se
ContactF1	0.522	(0.079)	0.399	(0.097)	0.316	(0.101)
ContactF2	0.539	(0.071)	0.344	(0.099)	0.355	(0.091)
ContactF3	0.840	(0.031)	0.625	(0.053)	0.588	(0.056)
ContactF4			0.691	(0.044)	0.688	(0.047)
ContactF5	0.691	(0.044)			0.900	(0.025)
ContactF6	0.688	(0.047)	0.900	(0.025)		

```
>
```

```
> coefficients$Hi
```

	Item H	se
ContactF1	0.564	(0.061)
ContactF2	0.554	(0.059)
ContactF3	0.663	(0.032)
ContactF4	0.665	(0.033)
ContactF5	0.624	(0.044)
ContactF6	0.602	(0.045)

```
>
```

```
> coefficients$H
```

Scale H	se
0.615	(0.039)

```
>
```

```
> monotonicity.list <- check.monotonicity(contact2)
```

```
> summary(monotonicity.list)
```

	ItemH	#ac	#vi	#vi/#ac	maxvi	sum	sum/#ac	zmax	#zsig	crit
ContactF1	0.56	4	0	0	0	0	0	0	0	0
ContactF2	0.55	4	0	0	0	0	0	0	0	0
ContactF3	0.66	4	0	0	0	0	0	0	0	0
ContactF4	0.66	4	0	0	0	0	0	0	0	0
ContactF5	0.62	8	0	0	0	0	0	0	0	0
ContactF6	0.60	3	0	0	0	0	0	0	0	0

```
>
```



```
> plot(monotonicity.list)
Hit <Return> to see next plot:
```

```
> iio.list <- check.iio(contact2)
> summary(iio.list)
```

```
$method
[1] "MII0"
```

```
$item.summary
```

	ItemH	#ac	#vi	#vi/#ac	maxvi	sum	sum/#ac	tmax	#tsig	crit
ContactF1	0.56	5	0	0	0	0	0	0	0	0
ContactF2	0.55	5	0	0	0	0	0	0	0	0
ContactF3	0.66	5	0	0	0	0	0	0	0	0
ContactF4	0.66	5	0	0	0	0	0	0	0	0
ContactF6	0.60	5	0	0	0	0	0	0	0	0
ContactF5	0.62	5	0	0	0	0	0	0	0	0

```
$backward.selection
```

```
step 1
```

```
ContactF1 0
ContactF2 0
ContactF3 0
ContactF4 0
ContactF6 0
ContactF5 0
```

```
$HT
```

```
[1] 0.650020
```

```
> check.reliability(contact2)
```

```
$MS
```

```
[1] 0.880906
```

```
$alpha
```

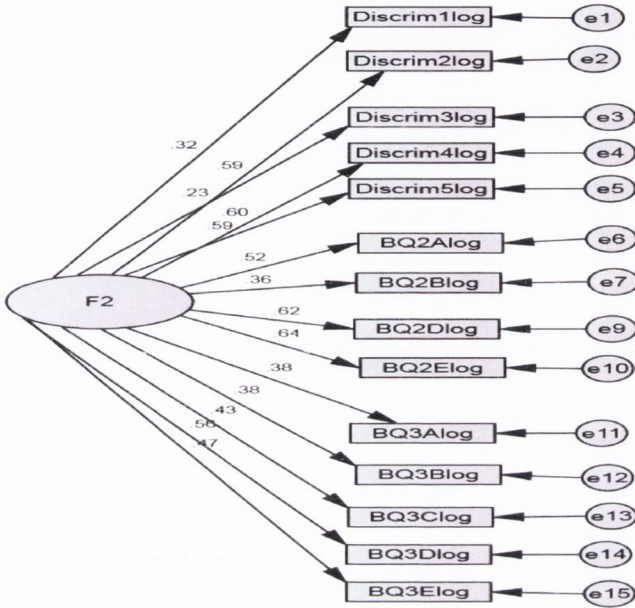
```
[1] 0.8632089
```

```
$lambda.2
```

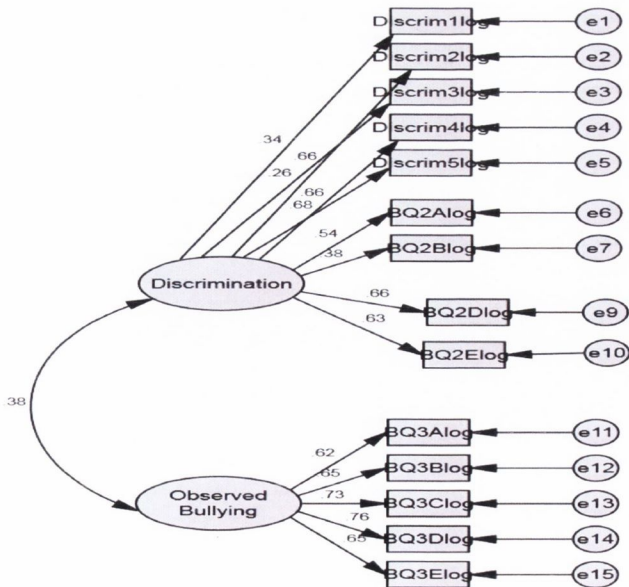
```
[1] 0.8754202
```

APPENDIX I: ALTERNATIVE CFA PATH DIAGRAMS

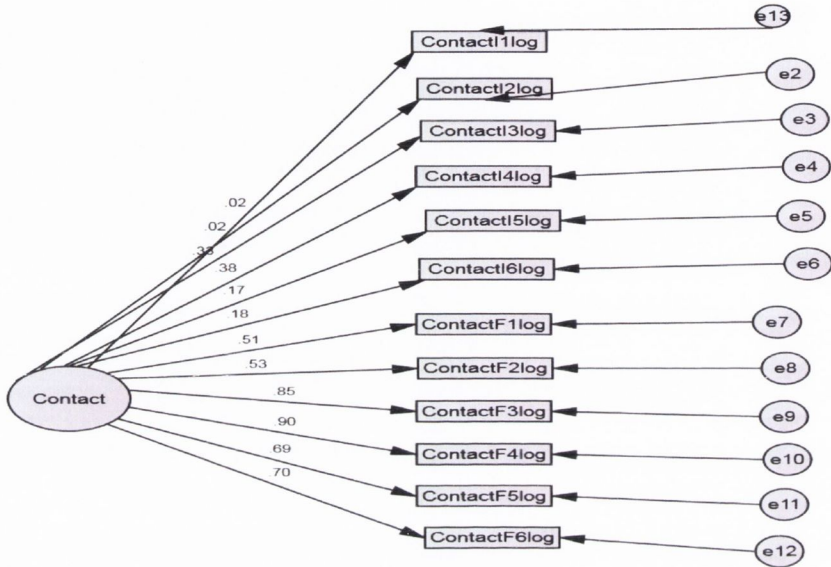
One Factor Bullying Model:



Two Factor Bullying Model:



One Factor Contact Model:



Two Factor Contact, not covarying:

