HAIGAZIAN UNIVERSITY

The Effect of Extended Contact and Imagined Contact on Friendship Intention between Students in General Education Programs and Students with Disabilities

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A Thesis submitted to the Faculty of Social and Behavioral Sciences in partial fulfillment of the requirements for the Master of Art in Psychology – Emphasis: Counseling at Haigazian University.

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Dedication

I am thankful that I was blessed to be surrounded with supportive individuals throughout my postgraduate journey.

I would like to thank my family for their unconditional support and love. Mom and Dad thank you for believing in me. Hassan, my brother, and Rasha, my sister, you two have seen me grow and achieve my goals; I wish the same for both of you throughout your lives, I hope I have inspired you to always aim high and reach your greatest potentials. Thank you both for always throwing positivity at me.

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Table of Contents

List of Tables

Abstract

The movement towards integrating children with disabilities into inclusive classrooms is on a rise. The present study is the first of its kind to evaluate a social psychological phenomena, Contact, and apply it in general education and special education settings in the Middle East. This study makes use of effect of extended contact and imagined contact in relation to friendship intention of students in general education programs towards students with disabilities in Lebanon. The purpose of this study was to assess whether friendship intentions are influenced by intergroup contact. An experimental research design was employed and a total of 225 students, aged 8-13, from the general education program were randomly assigned to the extended contact group, or to the imagined contact group, or to the control group. The Disability Awareness Questionnaire was used to measure disability awareness in students from the general education programs; and the Friendship Intention Scale was used to check for friendship intention of students after the interventions. Results for this study indicated that contact, as an intervention, was indeed successful on the Lebanese sample in this study. Participants showed significantly higher friendship intention levels after receiving the extended and imagined interventions compared to participants from the control group. This study has impactful implications which can address policy making for inclusion and educational reform. It will also provide experimentally tested interventions for improving friendship intention between children in general education and children with disabilities.

Keywords: intergroup contact, imagined contact, extended contact, experimental design, Middle East, Lebanon, friendship intention, special education, contact theory, inclusion, schools, education

The Effect of Extended Contact and Imagined Contact on Friendship Intention between Students in General Education Programs and Students with Disabilities

According to a study carried out by the Organization for Economic Co-operation and Development (OECD) in 2014, students enrolled in schools located in Middle Eastern countries, such as Turkey, spend approximately 6,500 to 8,000 hours at school during a school year ("Education at a Glance," 2017). As Crisp and Turner (2009) advised, schools can adapt ways to encourage more forbearance between students that have different disabilities and come from different backgrounds with different personalities (Crisp & Turner, 2009).

Integration towards inclusive classrooms has been a movement adopted by the educational sector in the recent years in several countries (Abbott, 2010; Rahman & Kiong, 2013; Sukumaran, Loveridge, & Green, 2014; Bossaert, Colpin, Pijl, & Petry, 2013; Pather, 2011). An inclusive classroom as suggested by Abbott (2010) is a setting that increases interaction or contact between a child with a disability and students in the general education population. Issues such as the social involvement of students with disabilities arise during inclusion debates (Bossaert, Colpin, Pijl, & Petry, 2013). In educational dialogues done by The United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2005, a main topic of discussion was the inclusion of students with disabilities into general education classroom settings (UNESCO, 2005). In their 1999 report, the United Nations Development Programme (UNDP) reported that the Lebanese government had joined the movement in acknowledging the importance of considering people who have disabilities and what can be done to help them. The government implemented the Educational Reform Plan that was presented by the National Center for Educational Research and Development. This plan highlights the

concerns and actions involved in taking care of individuals with disabilities, this also included the educational planning process that would take place (UNDP, 1999).

In May 2000, a new legislation was approved and adopted by the Lebanese parliament. It is known as law No.220, *Rights of Disabled persons* (Law 220/2000). This law has ensured security for the basic rights of Lebanese citizens with a disability. The law allows the integration of "citizens with disabilities into social and economic life, through employment, transport, and housing quotas. It also guarantees health and educational services." Law 220/2000 clearly states that people with a disability now have the right to be employed. To further strengthen this law and provide better work opportunities, there is an obligation for employing people with disabilities. As articles 73 and 74 state, there is a specified quota of people with disabilities to be employed by both the public and private sector. There is also a penalty for establishments that do not abide by this law. Another benefit provided by Law No. 220 is that it recognizes the right of children with disabilities to education; this involves examinations in accessible formats (Lakkis, El - Sibai, & Thomas, 2015). Due to insufficient classifications of the different types of disabilities, this law has not been fully put into action (Elsaheli-Elhage, & Sawilowsky, 2016).

On a separate note, the literature has stated that there is limited research done on effective interventions that facilitate acceptance and encourage friendships between students in general education classrooms and children with disabilities (Martinez & Carspecken, 2007). Even more is the scarcity on the research done in Lebanon on students with disabilities within Lebanese schools. But, nonetheless, in Lebanon, the trend is similar; there is a movement towards inclusion of students with disabilities into general education settings (Oweini & Zein, 2013). This "revolution" is not an easy process; individuals with disabilities in Lebanon face a lot of resistance from parents, teachers, and institutions (Wehbi & El-Lahib, 2007; Khochen & Radford, 2012). As Wehbi states, there are several barriers faced by students with disabilities in

the inclusive setting. Some of those barriers mentioned included: educational system barriers, insufficient finances, health issues, transportation hardships, and family pressures (Wehbi, 2007).

Stigma is a central issue when it comes to children with disabilities or even children labelled in schools as students with disabilities. One reason for stigmatizing attitudes towards children with disabilities could be the lack of knowledge on their condition by the society at large (Lalvani, 2015; Bull World Health Organ, 2016; UNESCO, Office in Beirut, 2016). In a study carried out by Obeid, the Lebanese population scored high on stigmatizing individuals within the Autism Spectrum Disorder (ASD). However, after receiving online training and exposure, the stigma rate decreased and knowledge about ASD increased. This shows that once there is knowledge about the out-group there is hope for less prejudice (Obeid et al., 2015). Another study carried out by Wehbe also states that there is deficiency in awareness and mental health when it comes to the Lebanese population (Wehbe, 2007). Similarly, EMBRACE stated that the stigma in Lebanon that surrounds mental illness is massively due to the fact that there is lack of knowledge on matters related to mental health (EMBRACE, 2015).

Concerning children with special needs, perhaps raising awareness and increasing literacy in children with disabilities through ensuring true interaction and contact, specifically within the classroom or school grounds, could help alleviate negative stereotypes and increase social integration. This could in turn contribute to increased wellbeing of the overall school atmosphere and environment for students with disabilities. Studies have pointed to the benefits of integrating students with disabilities into general education classrooms, particularly the benefit of providing children with disabilities the chance to experience social interactions with classmates (Wiart, Kehler, Rempel, & Tough, 2013) which will instill a sense of belonging, which may in turn translate into positive developmental outcomes cognitively, affectively, behaviorally, and socially (Prince & Hadwin, 2013).

Despite the movement towards social and educational integration of students with disabilities in Lebanon, it is unclear whether students in general education engage in quality interaction with students who have disabilities. Being within the same physical space as a person perceived as "different" does not guarantee social contact; hence, fruitful interaction on both ends or positive acceptance or friendships is not certain. It is also not clear whether students perceive their peers with disabilities as students like themselves or as an out-group, thus creating an in-group out-group dynamic which may further hinder meaningful contact. Research that focuses on attitudes of students towards their peers with disabilities have shown that there was a significant positive relationship between general education student's attitudes and their behavioral intentions towards their peers who have physical disabilities (Roberts & Lindsell, 1997). Another study concluded that children's attitudes towards their peers with disabilities and the amount of control that they believed they had over their actions towards the children with disabilities predicted the children's intentions to interact or socialize with a new classmate who has a disability (Roberts & Smith, 1999).

If contact is key to developing an understanding of the other and increasing knowledge of the other, then the mere presence of students from different backgrounds should address the issue of stigma, stereotyping and prejudice. But this is not the case. Then what type of contact could ensure positive outcomes?

The present research aims at applying tenets of the contact theory originally described by Gordon Allport, within schools that advocate inclusion in Lebanon. The contact theory, initially known as the contact hypothesis, was first proposed by Gordon W. Allport. The theory explains that given suitable conditions, contact between members from different groups can end up in an overall positive experience (Crisp & Turner, 2009). Allport, recommended that contact between opposing groups should be encouraged. He believed that under the right conditions, intergroup

hostility will decrease and this can pave the way for improved and positive intergroup attitudes (Crisp & Turner, 2009). He introduced his hypothesis on intergroup contact, explaining four vital conditions necessary for a successful contact intervention. These conditions are: equal group status within the situation, common goals, intergroup cooperation and authority support (Allport, 1954). Moreover, there are two types of contact that have been discussed in the literature: direct contact and indirect contact (Pettigrew et al., 2007). Direct contact involves an actual encounter of members from the in-group and the out-group (Pettigrew, Christ, Wagner, & Stellmacher, 2007). Indirect contact can be either extended contact, which is when one has a friend who is friends with someone from the out-group (Pettigrew et al, 2007), or imagined contact which is imagining an encounter between one and an individual from an out-group (Crisp, Husnu, Meleady, Stathi, & Turner, 2010).

Problem Statement

In her book, Ann Lewis states that children with physical or intellectual disabilities are being integrated in general education programs. This reaps many benefits such as academic growth, improved reading and writing levels, and also increased skill acquisition opportunities (Lewis, 2002). But, this also comes at a cost. For social and educational integration of children with disabilities into the general education classrooms to turn out successful, peer acceptance and positive interaction experiences with classmates are required to take place. Negative experiences with their peers could lead to several behavioral and emotional problems for children with disabilities (Laws and Kelly, 2005). Hocutt mentions that from the interventions being applied on integration in the United States, positive outcomes have been shown among children with disabilities (Hocutt, 1996). In "*Making it Happen",* UNESCO presented several success stories on programs that used different approaches from around the world; countries such as China, Ghana, India, Jamaica, Jordan and Norway, were included. These countries used various

programs that focused on the educational integration of students with disabilities into the general education environment (UNESCO, n.d.).

Stereotyping can affect the functioning of a group; and expecting individuals to accept one another and function properly together is not enough (as cited by Gierman-Riblon & Salloway, 2013). For example, in a study by Laws and Kelly (2005) in the United Kingdom, general education students showed low acceptance towards children with disabilities. In other words, when students from different groups and backgrounds, such as general education students and students from the special education programs, meet on common ground, which is the school, they may not be able to harmoniously coexist and build healthy-long lasting friendships without some additional conditions being met. These conditions can be extracted and applied from the contact theory.

Theoretical Framework

Contact Theory. Soon after World War II, social scientists started generating theories about intergroup contact (Zuma, 2010). One of the most influential was Gordon Allport, who came up with a model he termed the contact hypothesis, in 1954. Throughout the years, Allport's contact hypothesis has developed into a firm theory with much complexity. In the 1940s, racial conflict drew the most attention, social psychologists observed and usually made use of such field situations for testing out intergroup change. Allport's introduction of intergroup contact theory became an area of extensive study. In this theory, he opted for a positive-factors approach. He stated that for prejudice to decrease, four important conditions were to be present: (1) equal status of the groups in the situation, (2) common goals, (3) intergroup cooperation, and (4) the support of authorities, law or custom (Pettigrew, Tropp, Wagner, & Christ, 2011).

Pettigrew furthered Allport's work with his theory of changes in processes of groups (Gierman-Riblon & Salloway, 2013). Pettigrew mentioned four obligatory measures that must be

present for change to occur: (1) the in-group must learn about the out-group (2) change in behavior (3) affective ties must be generated (4) in-group reappraisal (Pettigrew, 1998). Furthermore, Pettigrew argued for a fifth factor to be added to the contact scenario which is the *opportunity for friendship* amid members of the in and out group (Turner et al., 2007). The application of this framework to the current experiment will be explained in details in the methods section of this paper.

Purpose of the Study

The purpose of this study was to investigate whether intergroup contact can encourage general education students to have friendship intentions towards children with disabilities. In a study carried out by Laws and Kelly, results show that most children will display positive attitudes whereby they are willing to say hello to a child with a disability or to offer them a sweet, but show no friendship intention (Laws & Kelly, 2005). A fair number of children who participated in that study reported that they would not want to partake in meaningful friendship actions such as inviting the child with disabilities over to their home or to the cinema. Also, about one fourth of the children in the study claimed they would not want to interact with a child who has disabilities at school, in the classroom, nor at the playground (Laws & Kelly, 2005).

In the Middle East, there is stigma aimed toward individuals with mental illnesses (Sewilam et al., 2014). Similar findings show up in both Obeid and Sewilam's study. When individuals are oblivious to what mental illness is, they end up stereotyping and labeling the mentally ill which will lead to negative discrimination (Obeid et al., 2015; Sewilam et al., 2014). Furthermore, individuals with disabilities have the burden of suffering through the disability-related stigma and social stigma that surrounds them (Sewilam et al., 2014). This is why, going through with this study will be beneficial to those who need it the most, which are school children. We are living in an era where schools are educating abundant amounts of students with

disabilities in general education settings, so this should encourage the promotion of healthy and affirmative attitudes towards children with disabilities within school settings (Chow & Kasari, 1999).

Given that this study is the first study to measure the effectiveness of contact intervention on friendship intention, focus will be on whether intergroup contact can influence attitudes of children in general education towards children with disabilities. It will also show if children in general education will develop friendship intentions towards children with disabilities.

Rationale of the Study

Upon review of the literature, it was established that there has not been a study that explored the results of intergroup contact on Lebanese general education students' attitude towards children with disbailities by using extended contact and imagined contact. There seems to be a gap in the literature on research done on Lebanese students in general education programs and their friendship intention towards children with disbailities. Also, research conducted on contact, specifically on imagined contact, as a school based intervention is scarce (Stathi, Cameron, Hartley, & Bradford, 2014). Furthermore, there is also little research that has been conducted to examine the usefulness of extended contact with younger children (Cameron, Rutland, Brown, & Douch, 2006).

To ensure that previous research findings on contact are culturally applicable in Lebanon, it is essential to look into this gap. Moreover, this study provides a unique contextual setting, Lebanon, for the exploration of whether contact can influence friendship intentions of children in general education programs towards children with disabilities that are enrolled in Lebanese schools. Schools are a space that provide students with the opportunities to socialize and take classes with other students from different backgrounds and ethnicities. The school also allows for several cross group friendships to grow and develop (Levin, Laar & Sidanius, 2003). So given

the correct kind of opportunity for contact, children with disabilities enrolled at inclusive schools should be able to interact and socialize with students in general education without having any difficulties. They will be able to build friendships that will allow them to grow and prosper as individuals. Finding out how much disability-related knowledge children have is critical in order to enhance relationships between children who have disabilities and those who don't (Hazzard, 1983).

Lebanon has been moving in the direction of social and educational integration since the early 1980s, this movement has been encouraged by civil society actors and governmental interest. In 1999, the Ministry of Education teamed up with UNESCO to study the educational situation of students with disabilities. The results of that study revealed that there are 310,118 children in Lebanon that can benefit from the compensations that are offered by a special education program. The research team shed light on the importance of developing a unified educational delivery system to ensure inclusion rather than the segregation of children with disabilities in inclusive institutions. This is why looking at ways that will make the transition and journey smoother for students with disabilities is a vital step to do now (Wehbi, 2006).

Significance of the Study

The current study is the first ever extension of social psychological phenomenon within a special educational setting, done in the Middle East. This research contributes to the wide-range of studies that have delved into the importance of social and educational integration. It also offers information to teachers, school counsellors, and parents on how to lower discrimination attitudes and beliefs within children in general education programs towards children with disabilities at schools while increasing acceptance and helping children build real friendship relationships.

There are countless benefits for integrating students with disabilities into general education classrooms. One of the most important reason for inclusion is that students with disabilities will have a sense of belonging which in turn greatly affects their developmental outcomes cognitively, affectively, behaviorally, and socially (Prince & Hadwin, 2013). Another important advantage of inclusion is that children with disabilities will have a chance to experience social interactions and engagement with classmates (Wiart, Kehler, Rempel, & Tough, 2013). Children in general education classrooms have a crucial role in making or breaking an inclusion program, these children can help ease the process of integration by interacting and accepting students with disabilities in a tolerant manner (Roberts & Lindsell, 1997). In other words, being able to provide students with disabilities a promising location to allow and encourage such a positive behavior is of the utmost importance, and this is where the contact theory comes in.

Some other major contributes and benefits that have come out from inclusion of children with disabilities and children in general education classrooms are: (a) least restrictive environments: when children who have disabilities and those who don't are taught with minimum obstructions; (b) individualized education program: a program that contains the profile of the child with a disability; (c) due process rights: when the children and their parents are involved in decisions regarding the special education program their child will be enrolled in; (d) due process hearing: this is when parents and schools can ask for an impartial hearing regarding any disagreed issues within the special educational services; (e) nondiscriminatory assessment: every child with a disability must be given an unbiased extensive and comprehensive assessment; (f) related services: physical therapy, occupational therapy, psychomotor therapy, and counseling must be offered by the schools (Hicks-Monroe, 2011).

As Cambra and Silvestre mentioned in their study, integration of students with disabilities within general education classrooms has led to positive effects on their social abilities and also arouses the growth of their identities (Cambra & Silvestre, 2003).

Research Questions

1. Will contact influence friendship intention of students in general education programs towards children with disabilities?
2. Will extended contact or imagined contact influence friendship intention the most when compared to the control group?

Hypotheses

H_1**:** Participants in the extended contact group and in the imagined contact group will report higher friendship intention levels in comparison to the participants in control group.

H_2: Participants in the extended contact group will report higher levels of friendship intention when compared to the participants in the imagined contact group.

H_3**:** Participants with higher levels of disability awareness will be more likely to report higher levels of friendship intention.

CHAPTER 2

Literature Review

In his book, *Racial Discrimination in the United States,* Pettigrew states that applying the intergroup contact theory in settings where there is low racial unification or in schools that are promoting integration of races, can lead to successful outcomes (Pettigrew, 1975). Crisp and Turner, further propose that schools could construct an applicable system that promotes contact imagery to break down barriers formed between students; and as a result, bring student groups together and encourage tolerance. He believes this to be a feasible manner to introduce social psychological content into educational interventions (Crisp & Turner, 2009).

Pettigrew argued that along with the initial contact hypothesis, came a number of problems that he chose to address in his paper titled *Intergroup Contact Theory.* The four problems are: the causal sequence problem, independent variable specification problem, unspecified processes of change problem, and the generalization of effects problem (Pettigrew, 1998).

Allport's work states that for a positive interaction between opposing groups to happen there are certain conditions that have to be met: equal status, common goals, intergroup cooperation, and authority support (Allport, 1954).

Conditions of Successful Contact

Equal Status. Having equal status does not imply that members of both parties come with full equality in status, but rather, each individual is viewed as equally important to every other participant. Every single member should feel that whatever they can offer or provide will be seen with an equal value to all others (Gierman-Riblon & Salloway, 2013). Equal status should take place within the situation (Cagle, 1973). Another important feature here is that it is essential for

both groups to assume and realize equal status in the area where they all cross paths (Cohen & Lotan, 1995).

Common Goals. "If there is one statement that we can make unequivocally about the typical American classroom, it is that children are almost never engaged in the pursuit of common goals." Students tend to be very competitive towards each other; so, in a school where students are taught to feel like equals and work towards a common goal, prejudice might be diminished (Aronson & Gonzalez, 1988). Pettigrew argued that for the level of prejudice present to be tuned down, an active and goal oriented effort should be present from both opposing groups. Once both groups share a goal, goal attainment will help further the process (Pettigrew, 1998). When all members within the groups are actively involved in a goal oriented activity, it is believed prejudice within the groups will be reduced (Gierman-Riblon & Salloway, 2013).

Intergroup Cooperation. With the elimination of intergroup competition, comes an interdependent work of fulfillment of common goals (Bettencourt et al., 1992). Aronson's study has shown intergroup collaboration in schools can offer strong evidence to support this. His technique that is known as the jigsaw is widely used in schools. In the jigsaw technique, students are divided into groups and different parts of the day's lesson is also divided amongst the groups in a way where each student is responsible for particular written information from the lesson. Eventually, students within the group piece their paragraph together and then share it with other groups until all parts of the lesson have been covered. That is to say, students are working together to get the task done without any competition among themselves. This technique has led to positive results for students coming from different countries (Aronson & Patnoe, 1997).

Authority support. This is the final condition, which requires the support from the establishers or authority members in the situation. Pettigrew stated that authority sanctioning this will establish and support norms of acceptance (Pettigrew, 1998), but Aronson and Gonzalez claimed

that although being backed up by the authority was a necessary condition, it was not a sufficient requirement (Aronson & Gonzalez, 1988).

With regards to schools and school students, when one looks at friendships on school grounds, one will notice most friends have equal status between each other, they also work together to achieve shared goals, and finally these friendships are supported and encouraged by the authorities on school premises.

Recent studies have shown that for attitude change to occur, there are four interrelated processes that must take place: learning about the out group, change in behavior, generating affective ties, and in group reappraisal (Pettigrew, 1998).

Learning about the out group. It is believed that getting information and knowing more about the out group is an important way which has many positive effects. While learning, false cognitions and ideas about the out group are corrected. This, in return will reduce prejudice during contact (Pettigrew, 1998). In a study conducted by Jeffries and Ransford, it was revealed that individuals who had interracial exposure through contact, were significantly less fearful of African Americans (Jeffries and Ransford, 1969).

Change in behavior. Before attitude change can take place, behavior change must occur. Unfamiliar situations encourage conforming to novel expectations. Once these expectations involve accepting members from the out group, there is potential for change in attitude formation (Pettigrew, 1998). In their study, Aronson and Patnoe emphasized that changes in attitudes depend on dealing with dissonance caused from old prejudice conflicting with new behavior (Aronson & Patnoe, 1997).

Generating affective ties. Emotions are a very important factor in intergroup contact. When the emotions experienced during contact are positive, contact is more likely to happen again in the future (Pettigrew, 1998). Here is where the role of empathy comes in; a study conducted by

Reich and Purbhoo showed that contact between majority and minority students in Canada was improved after students from the majority group were exposed to a story about the minority group (Reich & Purbhoo, 1975).

In-group reappraisal. Getting sufficient awareness about in-groups and out-groups can be quiet beneficial for ideal intergroup contact. A component of this process has to do with experiencing less contact with the in-group while being exposed to more contact with the outgroup (Pettigrew, 1998).

Types of Contact

Several types of contacts have emerged which can be divided into direct contact and indirect contact. In recent literature, the focus has been on the relationship between direct contact and extended contact. Research has also been pushed to find out who benefits the most from extended contact (Brown & Paterson, 2016). In direct contact, actual contact takes place whereby cross group friendships develop between the in group and the out group (Vezzali & Stathi, 2017). Indirect contact, however, includes two forms of unique contact: imagined contact and extended contact (some studies include vicarious contact as a third form of indirect contact while other studies consider it as extended contact and use both term interchangeably; for the purpose of this study, the latter will used).

Direct contact. Direct contact can also be considered as **actual contact,** it is basically friendships that arise between members of different groups who are in direct contact with each other (Turner, Hewstone, Paolini, & Christ, 2007). This form of contact has proven to be the most effective and valuable form of contact (Brown & Paterson, 2016). Intimate intergroup contact shown through cross group friendships (which can also be considered as direct contact) have come to prove that such relationships are active and important in improving out-group attitudes (Christ, Hewstone, Tausch, Wagner, Voci, Hughes, & Cairns, 2010).

Allport suggested a smoother first step when trying to apply contact, the extended form of contact. This was especially helpful for those individuals who might find direct contact to be too "threatening". Such contact, vicarious or extended contact, can happen through movies, stories, novels, and films (Brown & Paterson, 2016) as the following paragraph will explain.

Indirect contact. Indirect contact can be categorized into two types: extended contact and imagined contact, has proven to be able to decrease prejudice levels similar to those of direct contact (Pettigrew, Christ, Wagner, & Stellmacher, 2007). In a study done with elementary students, high school students, and university students, simply reading the popular Harry Potter novels improved attitudes towards stigmatized groups such as immigrants, homosexuals, and refugees between students who related more with the main positive character, Harry Potter, and those who related less to the main negative character, Voldemort. (Vezzali, Stathi, Giovannini, Capozza & Trifiletti; 2014).

Extended contact. The first type of indirect contact, is the form of contact that happens when people know a person who is friends with the out group or members from the out group and they themselves will be willing to be friends with the out-group (Cadenas et al., 2016). Extended contact has also shown that through vicarious experiences, such as merely observing a member from the in group interacting or having a friendship with a member from the out-group can encourage the observer to be open to having a relationship with an out-group member regardless of whether or not they belong to the same social network (Brown & Paterson, 2016). In other words, once a person we know takes part in building positive and constructive interactions with individuals from the out-group, this will eventually build positive attitudes in adults (Paolini et al., 2004) and children (Cameron et al 2006) toward members from the outgroup (Husnu and Crisp, 2010). Studies have shown that extended contact is responsible for prejudice reduction through three mechanisms which are: it reduces intergroup anxiety, it encourages a cognitive

connection with members coming from the out group, and finally, it facilitates group norms whereby perceptions of individuals from the in group and the out group accept intergroup contact (Brown and Paterson, 2016).

In studies that have included both direct and extended contact, extended contact has proved to have weaker effects than that of direct contact (Brown and Paterson, 2016). But, nevertheless, the effects of extended contact are not to be neglected especially when talking about a specific context that included a specific type of individuals. Put differently, extended contact has shown best results when the participants involved have little to no direct contact with the out group (Brown and Paterson, 2016). Brown and Paterson also stated in their paper that the effects of extended contact that come through family or friends are much stronger than those coming via neighbors and work colleagues, which further argues that interpersonal closeness to individuals within the extended contact relationship is a very important factor (Brown & Paterson, 2016).

For this type of contact, an incorporation of Bandura's social learning theory will elaborate more on the mechanisms that take place during the process of positive vicarious contact; whereby, indirect contact can play a role in intergroup attitudes and behaviors. Bandura's theory states human learning that takes place within a social context occurs through observation of an in group model or member. Such learning can elaborate how humans obtain attitudes, values, emotional reactions, and behavior actions in a given situation. In other words, one would learn how to behave in a similar given cross group situation after being exposed to another member of one's group's successful interaction with a member from the outgroup (Bandura, 1965). Such an interaction will reduce anxiety upon contact for both parties. Furthermore, vicarious contact effects are believed to advance intergroup attitudes and elevate

the openness to interact in direct cross group contact via modeling the ways for group contact (Mazziotta, Mummendey, & Wright, 2011).

Imagined contact. The second type of indirect contact, is "the mental simulation of a social interaction with a member or members of an outgroup category" (Crisp & Turner, 2009, p. 234). The findings from research that have been done on effects of mental simulation on social behavior, direct contact and extended contact shed light on imagined contact. Such findings are present in Crisp and Turner's study whereby participates mentally imagined an encounter with individuals from the out group that led to less prejudice eventually (Crisp, Husnu, Meleady, Stathi, & Turner, 2010; Crisp & Turner, 2009). Cognitive elaborations on "perceptions, attitudes, attributions and behaviors" have come to be of great benefit in assisting persons to "rehearse, plan, prepare, and reduce anxiety" related to real events about to take place (Crisp & Turner, 2009).

Imagined contact has been faced with backlash from criticism that comes from skeptics arguing that imagined contact cannot be executed within groups that have conflict with one another. It is further claimed that imagined contact is a result of demand characteristics (Brown and Paterson, 2016).

After all this, imagined contact has received empirical support (Brown and Paterson, 2016). The studies done with human participants have shown promising results, in a study such as the one done in Jamaica and Northern Cyprus, where these countries are known to have strict anti-gay rules and regulations, results proved that participants who were asked to only imagine interacting with a gay man for around 5 minutes, ended up reporting an overall more positive attitude and acceptance towards gay men than the control group that were asked to only imagine an outdoor scene (West, Husnu, & Lipps, 2014). Another study that came out with encouraging results through imagined contact was the study done on counter stereotypic imagined intergroup

contact, where results showed "lower levels of dislike, negative judgement, and social distance towards higher body weight people" from participants who were asked to imagine an interaction between themselves and a strong, confident, attractive, obese person (Dunaev, Brochu, & Markey, 2018).

The Present Research

The present study focused on the two kinds of contact which are: imagined contact and extended contact. Lebanese students in the general education program aged 8 to 13 years were the sample recruited for participation in this experiment. The reason behind choosing students that are within this age range is because studies have shown that these years are very critical for a child as he/she goes through important stages that establish the child's sense of identity (Eccles, 1999). Moreover, children in this school age develop "caring and solid friendships" (Milestones for 9-Year-Olds, 2018) especially of the same gender (Middle Childhood: 9-11 years old | CDC, 2019). Additionally, friendship experiences that take place among school aged children can significantly impact the school transitional phase for children. In other words, if a child enters school with a friend, this can assist the child adjust to school life (Vriniot, Matsagouras, 2004). The target outgroup was students with mild to moderate disabilties who do not have severe mental disabilities. Both females and males were expected to participate in the current study.

The study aims to investigate if extended contact and/or imagined contact can influence friendship intention between students in general education and students with disabilities.

The imagined contact activity tests an elaborate visualizing approach that was used to stimulate general education students' imagination which will include themselves interacting with a student who has a disabiltiy. Students were asked to mentally simulate the pleasant interaction and then write down how they felt and what they learnt from the intergroup situation. This way,

they will be more likely to seek a friendship with an individual from the out-group in the future (Husnu & Crisp, 2010).

The imagined contact activity asks students to imagine a pleasant encounter with another child that has been gender matched, in a playground setting that the students will see printed in color in their booklets. Students will be asked specific questions in the instructions part to mentally stimulate their minds as they imagine the scenario. This is supported by the findings that show the more vivid and elaborate the imagery is, the higher the intentions for future contact (Husnu & Crisp, 2010).

The extended contact activity will invite general education students to read a short story (that has been gender matched i.e. the character(s) in the story will be of the same gender as that of the participant) that will display a pleasant and friendly encounter between a child similar to themselves and a child who displays behavior that is different from other children.

For the control group, students were asked to read a short paragraph about a child that was gender matched who displays behavior that is "different" from other kids. But there was no form of contact being done here.

After all activities were done, students were asked to fill out a questionnaire and they were verbally thanked for their participation.

CHAPTER 3

Method

Participants

A total of 225 students were recruited for this study. The number of required participants was calculated using G*Power 3.1 assuming an effect size of 0.25 (Faul, F., Erdfelder, E., Lang, A.-G. & Buchner, A.; 2007). The participants recruited were Lebanese students enrolled in eight different private schools located in different areas in Lebanon (Beirut, Bier Hassan**,** Louizeh, and Mount Lebanon). These schools were of middle to high sociodemographic status; of the eight schools, five had an inclusive program. The students' ages range from 9-13 years old, from grade four till grade six. The sampling method used for this experiment is convenience sampling. The characteristic required for this sample is to be enrolled in a general education class between grades four to grade six.

The number of the female and male participants were approximately equivalent, but with male participants exceeding by a small margin: (52% (n= 117) were males and 45.8 % were females (n = 103)). The age of participants ranged between 8 and 13 with a mean age of 10.12 (*SD* = .06). The participants were recruited from three classes from eight schools; 35.1% (n = 79) from grade 4, 33.3% (n = 75) from grade five and 29.3% (n = 66) from grade six. Thirty-one percent (n= 71) of the recruited participants comprised the extended contact group, 32% (n= 72) comprised the imagined contact group and 34.2% (n=75) comprised the control group.

Ethical Considerations

Ethical approval was first sought from the Social Behavioral Sciences department's ethics committee at Haigazian University. Upon receiving approval, school principals were approached with a formal permission letter (See Appendix A Permission Letter) that shared the true purpose of the study and all details related to the experiment.

Once approval was received from school principals, parental consent forms (See Appendix B Parental Consent Form) were sent to parents of students in grades four to six. The parental consent forms stated that participation was voluntary, no harm will come to the participants, participants had the right to withdraw from the study whenever they wanted and all data collected will be kept confidential. Parents were asked to sign their names on the consent form as a sign of agreement of participation. The true purpose of the study was not shared with the parents in order to obtain unbiased information (Tai, 2012). Parents were told that the purpose of this research is to find out if intergroup contact will affect teamwork among students.

On the day of the experiment, an assent form was shared with the participants (See Appendix D Participant Assent Form). Students were asked to read the assent form and details were orally explained to the students before they started filling out the booklet. A printed copy of the assent form was sent to parents. The assent form explained that participation was voluntary, there is no risk in participating, participants had the right to withdraw from the study and all data collected will be kept confidential.

Once participants gave in their booklets, a debriefing form (See Appendix O Debriefing letter) was given to them. The true purpose of the study was explained to the students. They were also asked to share the debriefing form with their parents. The debriefing form thanked the students for participating, it included the true purpose of the study, it stated that participants had the right to withdraw from the study whenever they wanted, it stated that all data collected will be kept confidential and the experimenter's contact number and email were printed on the debriefing form for follow up questions and/or concerns.

Research Design and Procedure

An experimental design was employed to examine the effect of type of contact on friendship intention (Christensen, Johnson, & Turner, 2015).

Before the intervention

First, the experimenter approached the selected schools through a formal letter to take part in the study. The letter included the purpose of the study, participant's rights, and contact information. Next, after getting approval from schools, students in grades four, five and six received the parental consent form to take home for parents to read and sign for approval of their child's participation in the study. Parents who gave approval for their child to participate in this study were asked to fill out the parental demographic form (See Appendix C Parental Demographic Form) attached with the consent form. The parental demographic form asked parents to share their gender, age, marital status, child's gender, education level, number of children, employment status, number of siblings, presence of a family member with a disability and finally, their child's initials and date of birth. The parents had a duration of three days to make a decision. After that, the experimenter collected the consent forms and demographic forms of parents who had approved for the participation of their child in the study from the person in charge at the school. The experimenter generated a code using the child's initials and date of birth that was provided by the parent, this code should match the code generated from the participants' demographic form.

Before the intervention date, the experimenter had prepared the student booklets based on a set of random number sequence that was generated from Microsoft Excel. The booklets were then numbered in that order. Each number was used for a copy for females and males.

On the day of the intervention

Participants were randomly assigned to their respective groups, either extended contact, imagined contact, or the control group through randomization. This happened based on which intervention the booklet the participant received. Participating students were gathered by the person in charge at the school in an empty classroom at the school, their classmates (students that

did not participate in the study) stayed with the class teacher for their lesson. Students first received assent form (See Appendix D Participant Assent Form), which students were asked to keep with them. The next page was the demographic form (See Appendix E Participant Demographic Form). The participant demographic form asked participants to share their gender, age, grade, number of siblings, whether the participant had a friend or a family member with a disability, as well as share their initials and date of birth.

Pages three to five included the Disability Awareness Questionnaire (See Appendix F Disability Awareness Questionnaire), this consisted of short scenarios where students will be asked to read and choose the appropriate answer. Page six is the intervention the participant received. Following that, participants had to fill out the Friendship Intention Scale (See Appendix M Friendship Intention Scale (for girls) and Appendix N Friendship Intention Scale (for boys)) and finally the debriefing form (See Appendix O Debriefing letter, in this order. All the required information was orally shared with the participants and if they had any questions, they were answered.

After the intervention

Once students handed in their booklet, the experimenter provided the debriefing form and explained it to the students and answered any questions they had. Students were also asked to share this form with their parents. To track the information received from parents and the students, the first letter of the participant's name and first letter of the participant's family name along with the participant's date of birth was a required part to be filled by both parties. This in turn served as the participant code.

The experiments and data collection were carried out in the participating schools. This was all done by the experimenter alone. To track the information received from parents and the

students, the participant's initials and date of birth were used to generate a code. This code was used during data input to track parent and child responses.

Experimental Manipulation

Extended Contact. Seventy one general education students were required for this activity. Students received their assigned booklet. They were asked to read the instructions and fill out the demographic form and the Disability Awareness Questionnaire. Students then read a short story that discussed a pleasant interaction that took place between a child in general education and a child who had a disability. (See Appendix G Extended Contact (for girls) & Appendix H Extended Contact (for boys)). After that, students were asked to fill out the friendship intention scale. Finally, students were debriefed.

Imagined Contact. Seventy two general education students took part in this activity. Students were given a booklet with the assigned intervention. They were asked to read the instructions and fill out the demographic form and the Disability Awareness Questionnaire. For imagined contact, a colored image of a playground with swings and other games was printed on page 6. Students were asked to imagine an event that included themselves and a child (of the same gender) who acts different from other kids. Space was provided for the students to write down the story. Following that, the student were asked to fill out the friendship intention scale (See Appendix I Imagined Contact (for girls) & Appendix J Imagined Contact (for boys)). Finally, students were debriefed.

Research has shown that when presented with specific, vivid details of an imagined scenario (such as the setting and matched gender) participants create a richer and elaborate scene in their minds, which has resulted in enhanced future contact intentions (Husnu & Crisp, 2010; Stathi, Cameron, Hartley, & Bradford, 2014).

Control Group. Seventy seven students in the control group did not undergo any experience or activity related to contact. The students were asked to read the instructions and fill out the demographic form and the Disability Awareness Questionnaire. They were then asked to read a short paragraph that talks of a child that acts different. Once done, students were asked to fill out the friendship intention scale (See Appendix K Control Group (for girls) & Appendix L Control Group (for boys)). Finally, students were debriefed.

All student groups were reminded that there is no right or wrong answer and that their answers are confidential. They are just expected to answer what they feel or think in their own opinion.

Instruments

The Disability Awareness Questionnaire (DAQ) and Friendship Intention Scale (FIS) were used in this study. Both were administered in the English language.

Disability Awareness Questionnaire (DAQ). The participants included in this study responded to a questionnaire based on five vignettes with three multiple choice options. The design of the questionnaire modeled that of the Mental Health Literacy Questionnaire (Reavley & Jorm, 2011). The format of the disability questionnaire was modified to suit the ages of the participants. The case vignettes in the current study presented short scenarios that depict a child displaying a problematic behavior in the form of a disability.

The vignettes were chosen based on difficulties found in school settings, that is to say no severe disabilities were included within the vignettes. The vignette cases used were related to autism spectrum disorder (ASD), learning disabilities (LD) and physical disability (PD). The three types of disabilities (i.e., ASD, LD, and PD) include special needs of different severity levels, from severe to mild difficulties. In Lebanon, the move towards inclusion is focused on mild cases of disabilities (Khochen, 2017; Rayess, 2014), and for this reason, the three categories

of disabilities were selected to be included in the questionnaire items. Under each vignette, three multiple choice options were presented with only one being the correct answer in describing the problematic behavior in the scenario. The more correct descriptions chosen, the more it means that the participant was able to detect the presented disability in the scenario; therefore, measuring the participants' level of disability awareness (See Appendix F Disability Awareness Questionnaire).

Below is a sample question from the disability awareness questionnaire:

A girl hates being called out to read in class. She sees letters in a different way as she is reading. This makes her feel very nervous because she makes a lot of mistakes while she reads. It takes her a long time to say the correct word. She also makes many mistakes when she has a spelling exercise. Even though she always tries her best, she always gets a low grade in reading and writing.

Question: Do you think this girl-

a. is lazy?
b. is confused?
c. has a spelling problem?

Pilot Study

The Disability Awareness Questionnaire was developed by the experimenter along with the support of a group of experts in the area of special education due to the lack of finding similar questionnaires and/or scales of the same purpose that were accessible at the time the research was carried out. The Disability Awareness Questionnaire was adopted from the study titled Mental Health Literacy in Adolescents: Ability to recognize problems, helpful interventions and outcomes (Attygalle, Perera & Jayamanne, 2017) to examine if students were able to detect a disability-related problem upon reading a short vignette about another child.

Since the items in this questionnaire were not measuring the same construct, no reliability tests were carried out.

The Disability Awareness Questionnaire was first administered to a sample of 30 students enrolled in grades four to six from two schools in Beirut. The same steps that were done in the final study were applied during the pilot study. Initially, the vignettes included Middle Eastern names of children, but due to the disapproval of school principals in regards to having students in their schools with these names, no names were included. Also, the options in the multiple choice had the following terms: ADHD, Autism, and Dyslexia. These terms were deemed to be difficult for the participants and they were later translated into behavioral and detectable symptoms instead.

The questionnaire was tested for face and content validity through a group of experts in the area of special education. The vignettes and the multiple choice questions were constructed upon the panel's agreement on the content, structure, representativeness as well as the cultural and age appropriateness of the vignettes and questions. The suitability and appropriateness of the responses to the questions was also taken into consideration after several rounds of discussions.

This pilot study was undertaken to maintain (a) acceptability of the questions, (b) comprehension of the vignettes and questions, (c) assessment of the completeness of returned questionnaires. The final questionnaire consisted of 5 vignettes. The questions required the respondents to give the correct answer on, whether the vignette depicted a disability- related problem or any other every-day problem. The final changes that were made, included replacing children's names in the Disability Awareness Questionnaire with the phrase "A boy" or "A girl" due to school principals' concerns of having any of their students' names come up in the disability awareness questionnaire. Similarly, the names used in the extended intervention, imagined intervention and control intervention were changed to western names (Max, Tom, Lisa,

and Mandy); there were no students who had those names in the participating schools. Another change that was made had to do with the multiple choice options. Initially, diagnosis terms were used such as ADHD, Autism, and Dyslexia. The pilot study revealed that students found these terms too difficult, hence they were then replaced with behavior symptoms that were observable by students. There were several meetings and discussions that were done with the experts in the area of special education to go over the pilot results; all changes made were based on discussions with the committee members.

Friendship Intention Scale (FIS). The Friendship Intention Scale was adopted from Laws and Kelly's study titled *The Attitudes and Friendship Intentions of Children in United Kingdom Mainstream Schools towards Peers with Physical or Intellectual Disabilities* (Laws & Kelly, 2005). The scale consists of 10 situations that ask the participants about close childhood friendship features (Laws & Kelly, 2005). In the current study, students were asked to respond either yes or no questions. The questions range from asking if the participant would say hello to the child they had read about in the intervention to more intimate scenarios such as sharing a secret (Laws & Kelly, 2005). Participants were expected to respond by checking either Yes or No.

The purpose of this scale was to establish how friendly a child would be towards another child that displayed behavior that was different from theirs. First, participants read about a character (for females the character's name was Lisa, for males the character's name was Max). In extended contact, participants read about a child from the in group that interacted with Lisa or Max (presence of contact). Similarly, in imagined contact, the participants were asked to imagine themselves having a pleasant interaction with Lisa or Max (presence of contact). On the other hand, for the control group, participants read a short paragraph about Lisa or Max, which showed behavior that is different (no presence of contact). After carrying out the assigned activity

participants were asked to fill out the Friendship Intention Scale by checking either yes or no to the 10 questions (See Appendix M Friendship Intention Scale (for girls) & Appendix N Friendship Intention Scale (for boys)).

In their study, Brown, Ouellette-Kuntz, Lysaght, & Burge (2011) reported that the scale they used, called *Behavioral Intention Scale,* had an internal consistency of 0.93. This scale was used to analyze knowledge of and contact with individuals that had disabilities, it also measured perceptions of peers who had disabilities and behavioral intentions (Brown, Ouellette-Kuntz, Lysaght, & Burge; 2011).

Demographics

There were two different demographic forms to be filled out: one for the participants and one for their parents. The participants' demographics form included questions related to their age, class, number of siblings and gender. While the parents' demographic form included questions related to age, occupation, gender, number of children and highest level of education.

CHAPTER 4

Results

Descriptive Statistics

Of the 225 original respondents, 5 (2.2%) failed to adequately complete the surveys of the main variables. The Awareness Disability Questionnaire and the Friendship Intention Questionnaire were not filled out by the five respondents; and hence, these five participants were removed from the study and not included in further analysis. Of the remaining 220 participants, 46.8% (n=103) were females and 53.2% (n=117) were males. Participants' age ranged from 8 to 13 with a mean of 10.12 (*SD* = 0.06), with 39.5% (n= 79) of the participants coming from the 4th grade, 34.1% (n= 75) coming from the 5th grade and 30% (n=66) coming from the 6th grade. Thirty-five percent of the participants (n= 78) reported acquaintance with someone with

disability, while 64.1% (n=141) reported no acquaintance with someone with disability. An approximate equivalent placement of the participants was maintained among the extended contact group (32.3%, n= 71), imagined contact group (32.7%, n= 72) and control group (35%, n= 77); the participants were randomly assigned to those groups. The participants' full socio-demographic information (N = 220) is presented in Table 1.

Table 1

Number and Percentages of Participants as per Demographic Information (N = 220)

Demographics	*Categories*	*N*	*%*
Gender	*Female*	*10*	*46.8*
	Male	*11*	*53.2*
Age	*8*	*2*	*0.9*
	9	*54*	*29.1*
	10	*77*	*35*
	11	*62*	*28.2*
	12	*13*	*5.9*
	13	*2*	*0.9*
Grade Level	*4*	*79*	*35.9*
	5	*75*	*34.1*
	6	*66*	*30*
Number of	*0*	*13*	*5.9*
	1	*80*	*36.4*
	2	*77*	*35*
	3	*38*	*17.3*
	4	*7*	*3.2*
	5	*3*	*1.4*
	6	*2*	*0.9*
Acquaintance	*Yes*	*78*	*35.5*
	No	*14*	*64.1*
Intervention Type	*Extended Contact*	*71*	*32.3*
	Imagined Contact	*72*	*32.7*
	Control Group	*77*	*35*
Parent's	*No high school diploma*	*22*	*10*
	High school diploma	*35*	*15.9*
	BA diploma	*61*	*27.7*
	Master's diploma	*40*	*18.2*
	PhD diploma	*5*	*2.3*
Parent	*Upper Management*	*18*	*8.2*
	Middle Management	*19*	*8.6*
	Administrative staff	*12*	*5.5*
	Skilled Laborer	*10*	*4.5*
	Consultant	*3*	*1.4*
	Self-employed/Partner	*29*	*13.2*
	Homemaker	*51*	*23.2*
Parent Marital	*Married*	*16*	*74.7*
	Divorced	*8*	*3.6*
Parent's Age	*20-29*	*86*	*39.1*
	30-40	*65*	*29.5*
	41-50	*11*	*5*
	51-60	*9*	*4.1*

Preliminary Analysis

Prior to analysis, the data was checked for accuracy of entry and missing values. Missing values were only found on the Friendship Intention Questionnaire. Two missing values were found on the "offer candy" item, one missing value was found on the "Working on class project" item and one missing value was also found on the "Go to Cinema" item. Since the missing values did not exceed the 5% cutoff on each of the variables mentioned (Tabachnik & Fidell, 2013), replacing missing values was not considered.

Univariate outliers were examined for Friendship Intention Questionnaire and Disability Awareness Questionnaire for each group i.e. extended contact group, imagined contact group and control group separately. Outliers were checked using z-scores and all values exceeding the absolute value of +/-1.96 were considered outliers significant at the 99th confidence interval. One outlier was found on the Disability Awareness Questionnaire for the extended contact group z= -2.16. This outlier accounts for 8.5% of the scores which is above the 5% of what is expected in the normal distribution. Because outliers are considered natural occurrences in all data sets and because the z-score – 2.16 did not exceed the cut off 2.58 at the 99th confidence interval, it was not considered a major outlier and was not removed accordingly. Another outlier was found for the control group of Disability Awareness Questionnaire z= -2.06. This outlier was retained because its percentage (1.3%) is below the 5% of what is expected in the normal distribution.

A total of six outliers were found on the Friendship intention scale. Two outliers were found in the extended group z= -2.61 and z= -2.11, respectively. Two outliers were found in the imagine group z= -3.29 and z= -2.79, respectively. Similarly, two outliers were found in the control group z= -2.44 and z= -2.08, respectively. Nevertheless, these respective outliers were retained as they are considered as natural occurrences in all data sets and their percentages

(4.3%, 1.4% out of 70, 1.4%, 1.4% out of 72, 1.4% and 2.7% out of 74, respectively) are below the 5% of what is expected in the normal distribution.

Normality of the data for all continuous variables was checked through the standardized skew statistics (z skew), and histograms. The disability awareness variable for all the three groups was normally distributed with z-scores below the absolute value of 2.58 at the 99th confidence interval. The friendship intention variable for the control group was also normally distributed with its standardized z statistic z= -2.44 below 2.58. However, friendship intention variable for the extended group as well as for the imagine group were skewed as the standardized z statistic were z = -3.60 and z= -3.00 respectively; these z scores are greater than the absolute value of 2.58 significant at the 99th confidence interval; hence, the data in the friendship intention extended and imagined group are negatively skewed. Additionally, the KS test was performed to test for normality. The KS tests produced significant results for Disability Awareness extended (D (70) =.213, p=0.00), imagined (D (72) = .127, p=0.00), and control groups (D (74) = .186, p=.00), indicating that normality was not assumed. The KS tests also produced significant results for friendship intention extended (D (70) = .229, p= 0.00), imagined (D (72) = .197, p=0.00), and control groups (D (74) = .278, p= 0.00), indicating that normality was not assumed. However, given that the sample is large enough (n>30), deviations from normality were not accounted for (Field, 2013).

Homogeneity of variance among the extended contact group, imagined contact group and control group when dependent on friendship intention variable was assessed through Levene's test and an F (2,213) = 8.380, p = 0.000 was obtained indicating that the variances among the groups are not equal; hence, the non-homogeneity will be addressed by resorting to bootstrapping.

Reliability analysis

Reliability of the friendship intention instrument was assessed through Cronbach's alpha. Internal consistency for the Friendship Intention Questionnaire was assessed through Cronbach's alpha and is presented in Table 2. Reliability of the Friendship Intention Questionnaire was very low α=0.46, but removing the item "offer candy" increases the Cronbach's alpha to α=0.59. For this reason, this item was deleted, and a new mean for the friendship intention was generated including only the remaining 9 items.

Table 2

Reliability coefficients of the Scales

	Cronbach's α	Earlier Studies
FI	0.59	0.86

FI= Friendship Intention Questionnaire

Scale Descriptives

Descriptive data on the measures of the study are found in Table 3. The mean of disability awareness (*M* = 3.43, *SD* = 1.23) is higher than the scale mean midpoint 2.5; indicating that participants endorsed above average disability awareness. The mean of the friendship intention for the whole sample (*M* = 7.55, *SD* = 2.36) is higher than the scale mean midpoint 5; indicating that participants endorsed above average levels of friendship intention. More specifically, the mean of the friendship intention for the extended contact group (*M* = 8.20, *SD* = 1.99) is considerably higher than the mean midpoint 5; indicating that participants in the extended contact group endorsed high levels of friendship intention. With regard to imagined contact group, the mean of the friendship intention (*M* = 7.64, *SD* = 2.01) is higher than the scale

mean midpoint 5; indicating that participants endorsed above average levels of friendship intention as well. However, the mean of the friendship intention for the control group (M = 6.85, SD = 2.80) is lower than the mean scores of the two other groups, indicating a lower level endorsement of friendship intention by the control group.

Table 3

Scale Descriptives of Friendship Intention for Total Sample, Extended Contact Group, Imagined Contact Group and Control Group

	Total Sample	Extended	Imagined	Control
FI	7.55 (2.36)	8.20 (1.99)	7.64 (2.01)	6.85 (2.80)
AQ	3.43 (1.23)	3.54 (1.12)	3.40 (1.25)	3.46 (1.23)

FI= Friendship Intention Questionnaire; AQ = Disability Awareness Questionnaire

Sample Characteristics

A chi-square test of independence was performed to identify potential demographic differences between the three groups (extended contact group, imagined contact group and control group). No differences among the three groups were found for gender distribution, $\chi^2(2, 214) = 0.25$, $p = 0.88$; acquaintance with someone with disability, $\chi^2(2, 214) = 1.36$, $p = 0.50$; participant grade level $\chi^2(4, 214) = 4.18$, $p = 0.38$; or parent education level $\chi^2(8, 214) = 10.52$, $p = 0.23$. Hence, it can be concluded that there is no statistically significant association between each of these demographic variables and type of the intervention that participants were assigned to; indicating that the experimental and control conditions were matched for these demographic variables.

There were 21 females and 36 males in the extended contact group, 36 females and 36 males in the imagined contact group and 36 females and 41 males in the control group. Twenty-six grade 4, 21 grade 5 and 18 grade 6 students made up the extended contact group. Twenty-seven grade 4, 18 grade 5 and 17 grade 6 students made up the imagined contact group. Twenty-four grade 4, 24 grade 5 and 29 grade 6 students made up the control group. In the extended contact group, the majority of the participants (n=59, 90.8%) aged between 9 and 11. In the same vein, participants aged 9-11 made up the majority of the imagined contact group and control group (n=68, 94.4%; n=70, 91%, respectively). Of the extended group 20 reported that they have an acquaintance with someone with disability, and 45 did not. With regard to the imagined contact group, 29 reported acquaintance, while 43 did not, and of the control group 28 reported acquaintance, while 48 did not. Seventy-three percent of the extended contact group participants (n=29), 77.7% of the imagined contact group (n=38) and 72.8% (n=49) had parents with university degree education level.

Table 4

Participants characteristics of each group separately (N=220)

	Extended Contact Group	Imagine Contact Group	Control Group
Girls	21	36	36
Boys	36	36	41
Grade 4	26	27	24
Grade 5	21	18	24
Grade 6	18	17	29
Age Majority 9-11	59	68	70
Acquaintance with someone with a disability	29	29	28
No Acquaintance with someone with a disability	45	43	48
Parents with University Degree	29	38	49

Testing for confounding variables

Correlational analysis. Correlational analysis was conducted between disability awareness and friendship intention to investigate whether an association exists between the two variables. No significant correlation was obtained between the two variables (r= 0.04, p = 0.491) in the whole sample. This refuted **Hypothesis 3** which indicated that individuals with higher levels of disability awareness will be more likely to report higher levels of friendship intention. Similarly, no significant correlation was obtained between awareness disability and friendship intention for

extended (r= 0.009, p =0.974), imagined (r= 0.24, p =0.376) and control group (r= -0.19, p = 0.534).

Given that disability awareness and friendship were not found to correlate, disability awareness was not treated as a confounding variable in the main analyses. Check Table 5 for Pearson Coefficients.

A non-significance correlation was obtained between child's age and friendship intention (r = -0.10, p = 0.96). Similarly, a non-significant correlation emerged between child's number of siblings and friendship intention (r = -0.048, p = 0.491); hence, age and child's number of siblings will not be treated as a confounding variables in the main analyses.

Table 5

Pearson Correlations between disability awareness and friendship intention for extended contact group, imagined contact group and control group

	FI (Extended)	FI (Imagined)	FI (Control)
Disability Awareness	.009	.24	-.19

*Correlation is significant at the 0.05 level (2-tailed).

Independent Samples t-tests. An independent samples t-test was conducted to assess whether the means of males and females are significantly different on friendship intention. No significant differences were found on friendship intention (t (164) = 0.740, p = 0.245) between males and females. Another independent samples t-test was conducted in order to assess whether

those who have an acquaintance with someone with disability are different on their friendship intention levels. No significant differences were found on friendship intention (t (208) = -0.667, p = 0.505) between those who had acquaintance with someone with disability and those who did not. Consequently, gender and previous acquaintance with someone with disability will not be treated as a confounding variable in the main analysis.

Analysis of variance. A series of Analyses of variance (ANOVA) and post hoc comparisons were conducted to examine the differences of friendship intention as a function of participants' grade level as well as their parent's education level, and employment status. Results indicated that friendship intention scores were significantly different across grade level (F (2,208) = 3.285, p = 0.039) such as those who are in grade 4 scored higher on friendship intention (M = 8.09, SD = 2.04) compared to those in grade 6 (M= 7.11, SD = 2.47). Hence, grade level will be treated as a confounding variable in the main analyses. No significant differences were obtained between friendship intention levels across parent's education level F (4,151) = 1.839, p = 0.124) and employment status F (7, 132) = .971, p = 0.455). Consequently, parents' education level and employment status will not be treated as confounding variables in the main analysis.

Hypothesis Testing

Univariate Analysis of Variance. A two way analysis of covariance (ANCOVA) was conducted to test whether type of contact effected friendship intentions while controlling for child grade level and the participants' exposure to school programs that are either inclusive or not. A three by three factorial ANCOVA was run with contact type (extended contact, imagined contact and control) and grade level (grade 4, grade 5, grade 6) as independent variables, type of school as (inclusion/exclusion) as control variable and friendship intention as the DV. Bootstrapping was applied given that Levene's test indicated that the assumption for

homogeneity of variance was not met. The results of the two way ANCOVA revealed a significant main effect of intervention on friendship intention was obtained (F (2, 202) = 8.888, p = 0.000) such as those in the extended contact condition scored higher on friendship intention (M = 8.43, SD = 1.69) compared to those in the control condition (M = 6.85, SD = 2.80) (p=0.000), and those in the imagined group scored higher on friendship intention (M = 7.81, SD = 1.74) compared to those in the control condition (M = 6.85, SD = 2.80) (p=0.024). The obtained effect size of partial Eta Squared is 0.08 indicating that intervention had a small effect on friendship intention. However, the results did not support a main effect for grade level (p = .09) and the slope for the covariate type of school was not significant (p = .58). As such the model was evaluated one more time in a 3 way analysis of variance excluding grade level and school type.

Analysis of variance. Analyses of variance (ANOVA) with Games-Howell post hoc comparisons were conducted to examine the differences of levels of friendship intention across the three groups. Since the assumption of homogeneity of variance was not met (F (2, 213) = 8.380, p = 0.000), the Welch statistic was used and bootstrapping was applied in the ANOVA analyses. Hence, the results indicated that friendship intention scores were significantly different across the groups such as those in the extended contact condition scored higher on friendship intention (M = 8.43, SD = 1.69) compared to those in the control condition (M = 6.85, SD = 0.2.80)(F (2, 208) = 9.610, p = 0.000), and those in the imagined group scored higher on friendship intention (M = 7.81, SD = 1.74) compared to those in the control condition (M = 6.85, SD = 0.2.80) *(*F (2, 208) = 9.610, p = 0.038). Thus, it can be concluded that Hypothesis 1 which indicated that individuals in the extended control group and in the imagined contact group will report higher friendship intention levels in comparison to the control group was supported: indication that both types of contact seem to be equally effective relative to the control group.

The mean of friendship intention was higher for extended contact group in comparison to the imagine group, but this difference is not significant; therefore, Hypothesis 2 which indicated that individuals in the extended contact group will report higher levels of friendship intention than the individuals in the imagined contact group was not supported. .

Additional Analyses

Independent Samples t-test. An independent samples t-test was also conducted to assess whether the means of males and females are significantly different on disability awareness. No significant differences were found between males and females on disability awareness (t (164) = 1.696, p = 0.09). Another independent samples t-test was conducted in order to assess whether those who have an acquaintance with someone with disability differ on their disability awareness. No significant differences were found on disability awareness (t (208) = 1.831, p = 0.068) between those who had acquaintance with someone with disability and those who did not. An independent samples t-test was also conducted in order to assess whether those who are exposed to an inclusion or exclusion program in their schools will differ on their disability awareness. Results indicated that those who are exposed to inclusion reported higher disability awareness (M = 3.99, SD = .94) than those who were exposed to exclusion program (M = 3.15, SD = 1.22). This difference of – 0.83 was significant (t (206)= -5.206, p = .000).

Analysis of variance. A series of Analyses of variance (ANOVA) and post hoc comparisons were conducted to examine the differences of disability awareness as a function of participants' grade level as well as their parent's education level, and employment status. Results indicated that disability awareness scores were significantly different across grade level (F (2, 208) = 4.794, p = 0.009) such as those who are in grade 4 scored higher on disability awareness (M = 3.65, SD = 1.115) compared to those in grade 5 (M= 3.14, SD = 1.225); and those in grade

6 (M = 3.67, SD = 1.151) scored higher than those in grade 5 (M= 3.14, SD = 1.225). No significant differences were obtained between disability awareness levels across parent's education level F (4,151) = 2.234, p = 0.06). Disability awareness scores were also significantly different across parents' employment status (F (7,131) = 2.309, p = 0.03) such as those whose parents possess a middle management position scored significantly higher on disability awareness (M = 4.26, SD =0.87) compared to those whose parents are self-employed or hold a partnership position (M = 3.14, SD = 2.97).

CHAPTER 5

Discussion

Children with disabilities need peer acceptance in inclusive classrooms to have a good learning environment (Lewis, 2002) as well as to develop cognitively, socially, and behaviorally (Prince & Hadwin, 2013). In the recent years, there has been a movement towards integrating children who have disabilities with children from general education programs (Crisp & Turner, 2009). This is where the Contact theory comes into the picture. The contact theory states that under the right conditions, contact can lead to an overall positive experience between members from two opposing groups (Crisp & Turner, 2009).

For the purpose of this paper, this study investigated whether intergroup contact, through extended and imagined contact, can influence students from general education program to have friendship intentions towards children who have disabilities. Disability awareness among students was assessed using the Disability Awareness Scale, while the Friendship Intention Scale was used to measure participants friendship intention towards a child who acts "different". Results demonstrated the effectiveness of extended contact and imagined contact as a means to increase friendship intention between students in general education classrooms and children with disabilities.

Principal findings

Extended contact and imagined contact proved to be effective interventions for influencing friendship intention between students in general education programs and children with disabilities, as hypothesized. Statistically significant results were observed in this first of its kind study, showing that participants who had undergone both the imagined and extended contact interventions showed higher friendship intention levels towards students with disabilities when compared to participants from the control group.

Strengths of the study

This study is unique because this is the first time an experimental design was done within the special education domain in the Middle East using Contact, a social psychological phenomenon. Control was done on knowledge of someone with a disability and disability awareness. Thus, controlling for variables ensured a high internal validity. Random assignment was used to assign participants to their intervention group. The sample recruited was quite large. The methods have been previously used and thoroughly discussed in past research. Results are in line with previous research findings. The replication of this experiment is easy and feasible. The intervention was conducted during a single school visit for each school and it took around 40 minutes to complete with students.

The presence of facilitating factors needed for contact were already present in the participating schools. **Equal status** among the students was clearly applied by the schools. All students, from general education programs and from the special education program, were treated and viewed as equally important, in the sense that students shared the same classrooms (some students from the special education program were assigned to a different classroom for a specific subject, however, this classroom was very similar to that of the general education classroom), students also shared the same time table and same school activities. This could have contributed to the students also viewing themselves as equals in classrooms, hallways, and the school playground. Another contact condition that was present was **common goals** and **intergroup cooperation**. Students from the general education program and students from the special education program were usually grouped in the same team during PE (physical education) or even during group work in the class. This may have resulted in students working together in order to achieve their common goals. Finally, **authority support** of pleasant interactions to

occur between students from both the general education program and the special education program are instated in students at a very young age. Teachers, school counselors, and special educators all play a role at these schools at encouraging such relationships to happen There are several events and campaigns that take place around the school campuses to encourage children to be more accepting of others as well as to increase children awareness towards individuals with disabilities. Such events and campaigns are: Friendship Day, Autism Awareness Week and Rock Your Socks for Down Syndrome Day.

However, it is important to note that three out of the eight schools did not have an inclusive program, so it is not certain if these conditions were present at these three schools.

Study findings

Extended contact and imagined contact have offered opportunities to change attitudes towards the out-group and improve intergroup relations in different fields (Christ et al, 2010). The current research provides findings that can add to the scant literature on contact between students in general education classrooms and children with disabilities, specifically in the Middle East. This study's research outcomes have shown that extended and imagined contact were effective in influencing friendship intentions between students in general education and children with disabilities, supporting hypothesis 1. This was done by, first of all, checking for disability awareness among students in general education and then measuring friendship intention after students had undergone the interventions.

Extended contact findings are in line with previous research

Findings from this study have shown that the success of the extended intervention are in line with previous research findings. In their study, Cameron and Rutland (2006) demonstrated the effectiveness of extended contact as an intervention technique to improve children's attitudes

towards children with disabilities. Their research also showed that extended contact was effective since it led to improved change in attitude in their sample. They also claimed their study can provide beneficial support for inclusion polices for children with disabilities.

Similarly, in their study, Tausch, Hewstone, Schmid, Hughes, & Cairns (2011) argued that extended contact can be very impactful. They stressed that the strength of extended contact via others is dependent on how vital one is within an individual's social network. That is, the more one is central within an individual's social network the strong the effect of extended contact. Findings from studies done by Gómez, Tropp & Fernández have indicated that extended contact is generally associated with more positive attitudes as well as positively shifting expectancies for future contact (Gómez, Tropp & Fernández, 2011). The success of extended contact was also demonstrated in a study carried out by Camron et al (2006). Extended contact was used as an intervention to decrease negative out-group attitudes between children aged five to 11 and refugees (Cameron, Rutland, Brown & Douch, 2006).

In another study that highlights the effectiveness of extended contact, Cernat (2011) stresses on the importance of having information about close in-group and out-group relationships. Cernat claimed that this knowledge can lead to "stronger and broader positive effects". In the study, participants read a story about friendship between a member from the in-group and a member from the out-group. Participants from the intervention displayed higher out-group admiration and felt less threatened by the prospect of interaction. This shows that when participants read about a positive interactions taking place between a child that is similar to them and another child with difficulties, the participant will be encouraged to show improved intentions towards the child who has difficulties.

Imagined contact findings are in line with previous research

Results from the current study indicated that participants from the imagined contact group showed higher friendship intention when compared to the control group. This shows that imagined contact intervention was successful as it was proven in previous research (Stathi, Tsantila & Crisp, 2012). In their research, Stathi, Tsantila & Crisp (2012) reported that after mentally stimulating a positive interaction with someone from the out-group, participants displayed higher intentions for interacting with people from the out-group and reduced endorsement of stereotypes. Another study that highlighted the importance of imagined contact and its promising results was a study done by Crisp, Husnu, Meleady, Stathi & Turner (2010). In their study, the researchers claimed that imagined contact was a method that can be used to promote tolerance and more positive intergroup relations. Dunaev, Brochu & Markey (2018) aimed to test a "new weight bias reduction strategy". Their study proved to be successful as participants reported positive effects on weight bias after receiving the intervention.

Disability awareness of students in general education

Students in this study showed high disability awareness. Since the conditions for contact were present in these schools, it can be concluded that this was a major factor in increasing children's disability awareness. With the school authority showing support for intergroup cooperation between students, encouraging equal status between students from both programs and carrying out events and awareness campaigns, students end up having more knowledge about disabilities and in turn show more positive intentions towards individuals who have disabilities (Hall, 2008). In their study, Mohammadzadeh, Kayhan & Dimililer (2017) stated that a good way to enhance children's disability awareness was to allow them to read a story about a child with a disability and how this child carried on activities in the daily life. They claimed that

while students read such stories, they will experience: Identification, Involvement, and Insight. This was similar to what participants in the extended contact did, however, results from the current study showed that having higher disability awareness did not influence having higher friendship intentions, refuting hypothesis 3.

Friendship intention of students in general education

Students in this study showed high friendship intention. The explanation for this can be due to social desirability. This is when participants change their answers for impression management (to look better to others). This phenomena often happens when researchers interact with participants (Larson, 2018), as was the case in this study. Since it was a school setting and participants were children, social desirability would be rather high. No one, especially children, wants to be seen as "not nice to children with disabilities"; children want to be seen as nice and so they will want to "impress" the experimenter because it's good to be nice.

Additional findings

Also, additional analyses showed that participants whose parents held a middle management position scored significantly higher on the disability awareness scale when compared to those whose parents were self-employed or held a partnership position. These findings can be narrowed down to parental education. It can be assumed that those parents who possess a higher ranked job, got to that position because they pursued higher education. In line with Hortacsu's research, that says that parents' level of education can exert both direct and indirect influences on a child's outcome. In the research findings it was pointed out that parents education does affect child outcomes socially and emotionally (Hortaçsu, 1995).

Limitations of the Study

A number of limitations should be kept in mind when it comes to interpreting these results. First, the approach used to obtain this sample was convenience sampling; this is considered as a limitation since this could affect the generalizability of the results because the participants recruited were not randomly sampled. This is considered as a threat to external validity.

Another limitation to look into is that even though this study covered several areas around Lebanon, it still does not represent the entire Lebanese population. Even more, this study was limited to the elementary students' population. It is possible that the responses would have turned out differently had the study recruited students from middle or high school.

Furthermore, due to the lack of availability of scales that were child friendly and can be used with children when English is a second language, the experimenter had to develop scales that did not have very high reliability scores. Due to feasibility and time constraint reasons, these scales were not validated by other studies. Another limitation that appeared during the research was the language fluency and comprehension. The study made use of English scales that were not translated to Arabic, this could lead to a threat to internal validity especially since the current study aims to look at friendship intentions between students in the Lebanese culture where Arabic is the official language.

An additional limitation in this study is the method of piloting that was done before carrying out the official study. Due to time restraints and feasibility issues, piloting was done in a modified and simplified manner.

Social desirability bias was present during executing the experiment. This can produce results that are misinterpreted due to the fact that participants tend to distort self-reports in pleasing directions (Crutzen & Göritz, 2011).

Lastly, the disability awareness questionnaire used was self-administered. It was based on short vignettes that had 1 correct answer rather than a rating scale. So, it is possible that disability awareness was not accurately measured through this method. However, vignette-style questionnaires similar to the one used in this study have been used in similar studies across the world and have provided valuable results (Reavley & Jorm, 2011; Amarasuriya, Jorm, & Reavley, 2015; Attygalle, Perera & Jayamanne, 2017).

Future Research Recommendations

Future studies should consider replicating this study to check if similar findings with turn up. Also, future investigations can expand the sample area of study to include other areas and districts in Lebanon, this in turn, could make the study more credible and applicable to the Lebanese population. Also, future studies can have a bigger number of participants in the study which will further strengthen the results that will come from the study and possibly provide new results that weren't shown in this study.

Moreover, seeing as there is a lack of tools and instruments needed, it can be suggested that future research can formulate and validate assessment tools that can be used with children and more specifically used with children who study English as a second language. Further research is needed to validate disability awareness and friendship intention scales with children who speak English as a second language as well. Possibly if participants were given the chance to express themselves orally, rather than write down their thoughts, this can lead to a stronger connection between the visualization and friendship intentions scores.

It was found that the difference between imagined and control did not exist; however, we do see a higher performance in the imagined. Although it didn't reach significance but it is worth examining for future reference after control for child's age, child's ability to imagine and child's

writing ability. Several factors could have played a role in hindering strong results from taking place.

Since this study included only 2 types of contact, another study can be done whereby all 3 types of contact (actual contact, extended contact, and imagined contact) are included to be studied. There is full encouragement from the author for this study to be repeated and perhaps measure IQ and/or creativity ability of participants or even to measure participants' ability to engage in an imagination (which was not present in this study).

Practical Implications of the Study

This study, being the first of its kind, represents a stepping stone in highlighting the needed requirements to improve the social life of students with disabilities. It also provides findings that are very important for the field of developmental abilities specifically for the inclusion movement. The implementation of the contact theory can be successful in several different settings. Regarding scientifically based research that has been done on students in general education and children with disabilities, as well as on contact as a school intervention. Furthermore, there is also insufficient research that has been conducted to examine the usefulness of extended contact with younger children (Cameron, Rutland, Brown & Douch, 2006). As a result, it was established that there has not been a study that explored the results of intergroup contact on Lebanese general education students' attitude towards children with disabilities by using extended contact and imagined contact. Similarly, research conducted on contact, specifically on imagined contact, as a school based intervention is scarce (Stathi, Cameron, Hartley, & Bradford, 2014). This study can benefit science by providing strategies that actually do work and can influence friendship intentions between students in general education classrooms and children with disabilities. The components that are found in contact along with the intervention and findings can lead to a healthier school climate. This in turn provides positive

mental health for students, since "positive relationship experiences in school are key contributors to positive mental health" (Oberle, Guhn, Gadermann, Thomson, & Schonert-Reichl, 2018). Having good mental health is a tool for enduring and enriching healthy interpersonal relationships (Singh, & Junnarkar, 2015).

First, contact can be applied on school grounds. Several studies have shown how successful contact can be especially due to its feasibility and ease of application, the Contact Theory can be carried out on school grounds and applied for raising disability awareness (Clausen, Loreman, Snape, & Peterson, 2005). Contact was also applied with British children to decrease prejudice towards Asian children enrolled in British schools. Results showed an overall improvement of British children towards Asian children (Stathi, Cameron, Hartley & Bradford, 2014). In another study, Imagined contact was applied to decrease weight bias, results showed participants displayed lower levels of weight bias when compared to the control group (Dunaev, Brochu & Markey, 2018).. In another study that made use of the extended contact to change children's attitudes towards other children with disabilities, contact proved to be very effective leading children to have great change in their attitudes (Cameron & Rutland, 2006). These findings have shown that contact can be incorporated into schools' policies to encourage a more friendly and supportive atmosphere.

The current study made use of contact to bring to light the types of contact that will play a role in building friendships among school students. Through contact, general education students will realize they can have real friendships with students enrolled in the special education programs in schools.

Another setting contact can be applied in, is in higher institutions such as universities and colleges to reduce prejudice regarding race (Crisp & Turner, 2009). Similarly, in an environment where different people come from different religious backgrounds as was done in a study by

Paolini, Hewstone, Cairns & Voci (2004). They looked at whether direct and indirect contact can reduce prejudice between Catholic and Protestant respondents. Their predictions were empirically supported by weaker prejudice between both groups towards each other (Paolini, Hewstone, Cairns & Voci, 2004).

The community as a whole can benefit from this research due to the fact that encouraging contact between members of different groups, of course under specific conditions, can help improve tolerance between the groups which can lead to overall improved social relations. In other words, applying the contact theory can decrease tension that arise in communities that consist of people coming from different backgrounds. In their study, Cadenas, Cisneros, Todd, and Spanierman applied contact to check whether attitudes towards undocumented immigrants can be improved. Their results showed that their intervention was effective for improving attitudes toward undocumented immigrants on university campus (Cadenas, Cisneros, Todd & Spanierman, 2016). In another study, the experimenters applied extended contact to change children's attitudes towards refugees. Their results were concurrent to research that has been done with adults whereby contact proved to be successful in achieving positive results (Cameron, Rutland, Brown & Douch, 2006). Another way communities can benefit from contact is by applying it in the workplace. Gierman-Riblon & Salloway (2013) reported that nurses were taught Interprofessionalism based on the contact theory. They claimed that through the contact theory, the development of team-oriented thinking and behavior can be accomplished (Gierman-Riblon & Salloway, 2013).

In Lebanon, applying the contact theory will greatly benefit the Lebanese population especially that the direction the country is heading towards full support of inclusion. Along the way there will be a need to reduce stigma from individuals in the community (Brown, Ouellette-Kuntz, Lysaght & Burge, 2011). In terms of policy, these findings have serious benefits for

inclusion policies for children with disabilities in the education system. Since the goal is make school environments welcoming for children with disabilities, we should work on improving their experiences overall in such settings. This can be done by implementing interventions that provide a positive environment to children with disabilities prior to their arrival (Cameron & Rutland, 2006). The Ministry of Education and Higher Education in Lebanon is currently working on a program with UNICEF to create a fair chance for children with disabilities to enroll in public schools around the country. This program is currently in its pilot stage but it looks hopeful. This program brings several rewards to the participating schools such as equipping teachers, administrators, and other educational members with the needed knowledge and skills to nurture an inclusive setting. This project will also provide research based data and increase awareness of parents, families, and all personnel involved within the inclusive setting (UNICEF, 2018).

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Appendix A
Permission Letter

Monday 15 October, 2018
Permission to Conduct Research Study

I am writing to request permission to conduct a research study at your school. I am currently enrolled in Haigazian University as an M.A. student in Counseling Psychology. I am in the process of writing my master's thesis. The title of my study is: *Extended Contact and Imagined Contact in Relation to Friendship Intention between Students in Mainstream Programs and Students in the Special Needs Program.*

I hope that the school administration will allow me to recruit approximately 50 students enrolled in grade 4 to grade 6 from the school to anonymously participate in my experiment. Due to the nature of the study, I hope to recruit (the mother, father, or guardian) of these students to anonymously complete their own 1-page questionnaire. Interested students, who volunteer to participate, will be given a consent form to be signed by their parent or guardian and returned to the primary researcher at the beginning of the process.

If approval is granted, student participants will complete a booklet in a classroom or other quiet setting on the school site. The duration of the experiment will need 1 full school period, the exact time and date can be agreed upon during the meeting between the principal and the experimenter. The experimental process should take no longer than approximately 55 minutes. Parent participants would complete a questionnaire at home. The study will require students to take part in either reading a short story or going through a visualizing exercise which will involve a child with a disability. After that, students will be asked to fill out 2 questionnaires.

The results of the study will be pooled for the thesis project and individual results of this study will remain absolutely confidential and anonymous. Should this study be published, only pooled results will be documented. No costs will be incurred by either your school or the individual participants.

Your approval to conduct this study will be greatly appreciated. I will follow up with a phone call in 2 days and would be happy to answer any questions or concerns that you may have at that time. You may contact me at my email address: carolnehme16@gmail.com or call me at 70/879424. Any further documents that you may require can be provided upon request.

If you agree, kindly sign below and return the signed letter. Alternatively, kindly submit a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to conduct this study at your institution.

Sincerely,

Carol Nehme

Signature: _____

Appendix B

Parental Consent Form

Parental Permission for Participation of a Child in a Research Study
Haigazian University

Extended Contact and Imagined Contact in Relation to Friendship Intention between Students in Mainstream Programs and Students in the Special Needs Program

Description of the research and your child's participation

Your child is invited to participate in a research study conducted by Carol Nehme, a Masters student in Counseling Psychology at Haigazian University from the Department of Social and Behavioral Sciences. The purpose of this research is to find out if intergroup contact will affect teamwork among students.

Your child's participation will involve reading a short story or imagining an activity then writing about it; and filling out 3 forms.

The amount of time required for your child's participation will be approximately 30-50 minutes.

Risks and discomforts

There are no known risks associated with this research.

Potential benefits

The following study will add information to teachers, school counsellors, and parents on how to lower discrimination attitudes and beliefs within children in mainstream programs towards children with special needs at schools while increasing acceptance and helping children build real friendship relationships. This study will contribute towards the partial fulfillment of my academic study requirements at Haigazian University.

Protection of confidentiality

We will do everything we can to protect your child's privacy. Your child's identity will not be revealed in any publication resulting from this study. The data gathered will be kept in a secure location under the care of the study investigators for a period of 10 years as per the regulations of the Faculty of Social and Behavioural Sciences at Haigazian University.

Voluntary participation

Participation in this research study is voluntary. You may refuse to allow your child to participate or withdraw your child from the study at any time. Your child will not be penalized in any way should you decide not to allow your child to participate or to withdraw your child from this study.

Contact information

If you have any questions or concerns about this study or if any problems arise, please contact Carol Nehme at 70/879424 or Dr. Farah ElZein, Assistant Professor in the Faculty of Social & Behavioral Sciences, Haigazian University at 01/349230.

Consent

- ☐ **I have read this parental permission form and do not wish to participate in this study.**

- ☐ **I have read this parental permission form and I give my permission for my child to participate in this study.**

Guardian's signature _____

Date: _____

Child's Name: _____

Child's Grade: _____

Please fill out the spaces below:

First letter of your child' name: _____

First letter of your child's surname: _____

Your child's date of birth (D/M/Y): ___/____/_____

Note:

If you have agreed for your child to participate in this study, please fill out the Parent's Demographic form attached to this sheet. If you do not wish to allow your child to participate in this study, please do not fill the Parent's demographic form out.

Appendix C

Parental Demographic Form

Please fill in the following:

Gender:

- Female
- Male

Marital Status:

- Married
- Divorced
- Other _____

My child is:

- a girl
- a boy

Highest level of education:

- Haven't graduated high school
- High school graduate
- Bachelors
- Masters
- Doctorate
- Other _____

Number of children:

- 1
- 2
- 3
- 4
- 5
- Other _____

Age:

- 20-30
- 31-40
- 41-50
- 51-60
- Other _____

Is there any member within the family that has a disability?

- Yes
- No

Current employment status:

- Upper Management
- Middle Management
- Administrative Staff
- Skilled Laborer
- Consultant
- Self-employed/Partner
- Homemaker
- Other _____

Number of siblings (brothers and sisters):

- 0
- 1
- 2
- 3
- 4
- Other _____

Appendix D

Participant Assent Form

Hello! I am Carol Nehme from Haigazian University. I am doing a study that looks at teamwork.

First, you will be asked some questions about yourself. Next, you will have some pages to read and answer. I will keep all your answers private, and will not show them to anyone.

I don't think that any big problems will happen to you as part of this study.

You can feel good about helping us complete this study.

You should know that:

- You do not have to be in this study if you do not want to. You won't get into any trouble if you say no.
- You may stop being in the study at any time.
- Your parent(s) were asked if it is OK for you to be in this study. Even if they say it's OK, it is still your choice whether or not to take part.
- You can ask any questions you have at the end of the session. If you think of a question later, you or your parents can contact me at on 70-879424 or carolnehme16@gmail.com. You can also contact Dr. Farah El-Zein at Haigazian University on 01-353010.

Appendix E

Participant Demographic Form

Fill in the following:

Gender:

- Female (girl)
- Male (boy)

Grade:

- 4
- 5
- 6

Age:

- 8
- 9
- 10
- 11
- 12
- 13

Do you have any friend or family member with a disability?

- Yes
- No

Number of siblings (brothers and sisters):

- 0
- 1
- 2
- 3
- 4
- 5
- Other _____

Please fill out the spaces below:

First letter of your name: _____

First letter of your surname: _____

Your date of birth (D/M/Y): ____/_____/___

Appendix F

Disability Awareness Questionnaire

Read the following short passages. Then answer the question that follows each passage by circling the correct answer.

1. There is a boy who is different from other kids. He has difficulty letting others know what he wants or even what he is thinking about. When he feels uncomfortable, he starts screaming very loudly. This boy can't control his feelings, he can't show his love to his parents, family, or friends. He doesn't like to talk a lot, he sometimes ignores others when they are talking to him. He also doesn't like to make eye contact with people.

   Question: Do you think this boy-

a. had a fight with his friends?
b. likes to be alone?
c. has trouble building relationships?

2. A girl hates being called out to read in class. She sees letters in a different way as she is reading. This makes her feel very nervous because she makes a lot of mistakes while she reads. It takes her a long time to say the correct word. She also makes many mistakes when she has a spelling exercise. Even though she always tries her best, she always gets a low grade in reading and writing.

   Question: Do you think this girl-

   d. is lazy?
   e. is confused?
   f. has a spelling problem?

3. A boy does everything while sitting on a chair with wheels. He has someone push his chair for him on the road because he can't walk. He was born with a problem in his legs. Although he gets good grades in Math, he likes reading stories about dragons. That's why he always has a book with him. He sometimes watches other kids running around playing football and he wonders how it feels to be able to run.

   Question: Do you think this boy-

a. hates school?
b. is on a wheelchair?
c. is feeling tired?

4. A girl doesn't have many friends. Kids look at her differently because she behaves in a way that's different from them. She doesn't always wipe her mouth after she eats. She hates being touched by anyone. She prefers if you ask her first before giving her a hug. She gets very nervous when there is a sudden change in the classroom plan. She likes to open and close her pencil case all day long, this is one of the activities she enjoys doing.

   Question: Do you think this girl-

a. is different from other kids?
b. is trying to make her friends laugh?
c. is not tidy?

5. There's a boy who is very active. He is always doing something or talking to someone. This is why he gets punished in class. He loves to move around. His favorite period is PE. He speaks without thinking, especially when the teacher asks a question in class. His answer usually has nothing to do with the question. He doesn't know how to divide his time correctly at school and at home. He can't stay focused on one task, it's very hard for him. He would do several things at the same time and end up not finishing any.

   Question: Do you think this boy-

a. is trying to make friends?
b. needs help with organizing his things?
c. is trying to avoid working in class?

Appendix G

Extended Contact (for girls)

Read the following story and answers the questions on the next page. There is no right or wrong answer here. I want you to answer honestly and in your own opinion.

My Friend Lisa

It was the first day of school. As Mandy walked into school, she noticed a girl her age wearing a red shirt just laughing on her own by the wall. Mandy decided to continue and go find out where her new classroom is.

In class, Mandy found a seat next to the girl with the red shirt. Her name was Lisa. Lisa looked neat and tidy in general, but she was very quiet. Lisa kept moving front and back when she was on her chair. While the teacher was introducing herself, Lisa kept moving her ruler around. Mandy wanted to smile to Lisa, but Lisa never looked at Mandy. When it was time for everyone to introduce themselves, Lisa had a hard time following instructions. She would talk in short sentences and in a low voice. Some kids laughed at Lisa; Mandy didn't like that.

When the recess bell ran, all students rushed to go to the playground. Mandy noticed Lisa was having a hard time going down the stairs because all the students kept pushing her. She kept yelling "slow down!" kids heard Lisa but they laughed and walked past her. Mandy decided to help Lisa walk down safely.

As soon as they got to the playground, Lisa thanked Mandy and left to sit alone. Other kids called Mandy to join them, she did for some time. But she kept her eye on Lisa, she noticed Lisa was rocking back and front. Mandy felt she wanted to know more about Lisa. Mandy left the group and went to stand next to Lisa. Lisa looked at Mandy and said "do you like math?" Mandy said "not so much, I'm not so good at it" Lisa said "I'm very good at numbers! I can add any number you give me."

Mandy was impressed. Lisa handed Mandy a calculator and told her to give Lisa any number to mentally add. "854,623,454 plus 3,697,456" Mandy said. Lisa took a few seconds and said "858,320,910. Am I correct?" "YES!" Mandy was amazed, she was so surprised at Lisa's skills that she called the other students to come see Lisa's talent.

Soon enough, all students were surrounding Lisa giving her numbers to add in her mind. Mandy was happy she helped Lisa make some friends. A few days later, Lisa came up to Mandy and told her "you are my best friend."

Appendix H

Extended Contact (for boys)

Read the following story and answers the questions on the next page. There is no right or wrong answer here. I want you to answer honestly and in your own opinion.

My Friend Max

It was the first day of school. As Tom walked into school, he noticed a kid his age wearing a red shirt just laughing on his own by the wall. Tom decided to continue and go find out where his new classroom is.

In class, Tom found a seat next to the kid with the red shirt. His name was Max. Max looked neat and tidy in general, but he was very quiet. Max kept moving front and back when he was on his chair. While the teacher was introducing herself, Max kept moving his ruler around. Tom wanted to smile to Max, but Max never looked at Tom. When it was time for everyone to introduce themselves, Max had a hard time following instructions. He would talk in short sentences and in a low voice. Some kids laughed at Max; Tom didn't like that.

When the recess bell ran, all students rushed to go to the playground. Tom noticed Max was having a hard time going down the stairs because all the students kept pushing him. He kept yelling "slow down!" kids heard Max but they laughed and walked past him. Tom decided to help Max walk down safely.

As soon as they got to the playground, Max thanked Tom and left to sit alone. Other kids called Tom to join them, he did for some time. But he kept his eye on Max, he noticed Max was rocking back and front. Tom felt he wanted to know more about Max. Tom left the group and went to stand next to Max. Max looked at Tom and said "do you like math?" Tom said "not so much, I'm not so good at it" Max said "I'm very good at numbers! I can add any number you give me." Tom

was impressed. Max handed Tom a calculator and told him to give Max any number to mentally add. "854,623,454 plus 3,697,456" Tom said. Max took a few seconds and said "858,320,910. Am I correct?" "YES!" Tom was amazed, he was so surprised at Max's skills that he called the other students to come see Max's talent.

Soon enough, all students were surrounding Max giving him numbers for him to add in his mind. Tom was happy he helped Max make some friends. A few days later, Max came up to Tom and told him "you are my best friend."

Appendix I

Imagined Contact (for girls)

Today we are going to imagine a story about a day spent at the playground just like the one you see here.

Imagine you met a new friend at this playground. Your new friend's name is Lisa. Lisa seems to be different from other kids in the way she acts, speaks, and plays. Imagine you talked together and had a very good time. While you imagine the story I want you to think of some details such as what you were wearing, was the playground crowded? What did you talk about? What are some fun things you both did? How did you feel? What is something new you learnt about your friend?

Below you will find some lines for you to write out what you imagined. **There are no grades for this activity; however, please make sure your handwriting is clear.**

_____

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_____

Appendix J

Imagined Contact (for boys)

Today we are going to imagine a story about a day spent at the playground just like the one you see here.

Imagine you met a new friend at this playground. Your new friend's name is Max. Max seems to be different from other kids in the way he acts, speaks, and plays. Imagine you talked together and had a very good time. While you imagine the story I want you to think of some details such as what you were wearing, was the playground crowded? What did you talk about? What are some fun things you both did? How did you feel? What is something new you learnt about your friend?

Below you will find some lines for you to write out what you imagined. **There are no grades for this activity; however, please make sure your handwriting is clear.**

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Appendix K

Control Group (for girls)

Read the following paragraph and answers the questions on the next page. There is no right or wrong answer here. I want you to answer honestly and in your own opinion.

All about Lisa

Lisa is a girl that is different from most kids. She has a hard time following instructions. Students at school make fun of Lisa most of the time. During recess, Lisa gets bothered from all the loud noises around her. She spends most of recess alone. Sometimes, after Lisa eats, she forgets to wipe her mouth. Lisa doesn't like to be touched, she starts screaming if someone touches her, even if it was for a hug. Lisa gets uncomfortable if there are any sudden changes and she is not prepared ahead of time. Lisa is interested in numbers, she usually focuses very hard on additions and doesn't pay attention to anything around her. Lisa has a hard time being part of a group or a team, she likes to have friends but she can't always communicate her mind with them. Lisa prefers to have her things in place, she doesn't like to see things out of place. When she is feeling stressed, Lisa starts moving front and back; this helps her relax sometimes.

Appendix L

Control Group (for boys)

Read the following paragraph and answers the questions on the next page. There is no right or wrong answer here. I want you to answer honestly and in your own opinion.

All about Max

Max is a boy that is different from most kids. He has a hard time following instructions. Students at school make fun of Max most of the time. During recess, Max gets bothered from all the loud noises around him. He spends most of recess alone. Sometimes, after Max eats, he forgets to wipe his mouth. Max doesn't like to be touched, he starts screaming if someone touches him, even if it was for a hug. Max gets uncomfortable if there are any sudden changes and he is not prepared ahead of time. Max is interested in numbers, he usually focuses very hard on additions and doesn't pay attention to anything around him. Max has a hard time being part of a group or a team, he likes to have friends but he can't always communicate his mind with them. Max prefers to have his things in place, he doesn't like to see things out of place. When he is feeling stressed, Max starts moving front and back; this helps him relax sometimes.

Appendix M

Friendship Intention Scale (for girls)

Read the following questions. Put a ✓ in the box that applies to you. There are no right or wrong answers, just answer honestly in your opinion.

	Yes	No
Would you say hello to Lisa?	☐	☐
Would you like to sit next to Lisa in class?	☐	☐
Would you play with Lisa during your break time?	☐	☐
Would you offer Lisa some of your candy?	☐	☐
Would you choose Lisa to be on your team during PE?	☐	☐
Would you like to work with Lisa on your class project?	☐	☐
Would you invite Lisa over to your house to play games?	☐	☐
Would you go to the cinema with Lisa?	☐	☐
Would you go to Lisa's house to play?	☐	☐
Would you share a secret with Lisa?	☐	☐

Appendix N

Friendship Intention Scale (for boys)

Read the following questions. Put a ✓ in the box that applies to you. There are no right or wrong answers, just answer honestly in your opinion.

	Yes	No
Would you say hello to Max?	☐	☐
Would you like to sit next to Max in class?	☐	☐
Would you play with Max during your break time?	☐	☐
Would you offer Max some of your candy?	☐	☐
Would you choose Max to be on your team during PE?	☐	☐
Would you like to work with Max on your class project?	☐	☐
Would you invite Max over to your house to play games?	☐	☐
Would you go to the cinema with Max?	☐	☐
Would you go to Max's house to play?	☐	☐
Would you share a secret with Max?	☐	☐

Appendix O

Debriefing letter

Thank you for participating in this study. We hope you enjoyed the experience. This form provides background about our research to help you learn more about why we are doing this study. Please feel free to ask any questions or to comment on any aspect of the study.

You have just participated in a research study conducted by Carol Nehme, MA student at Haigazian University.

You were told that the purpose of this study was to look at teamwork among students. In fact, we were interested in studying friendship intentions between mainstream students and students with special needs. To protect the integrity of this research, we could not fully reveal all the details of this study at the start of the procedure.

As you know, your participation in this study is voluntary. If you so wish, you may withdraw after reading this debriefing form, at which point all records of your participation will be destroyed. You will not be penalized if you choose to withdraw.

You may keep a copy of this debriefing for your records **OR** please return this debriefing form to the experimenter.

If you have questions now about the research, please ask. If you have questions later, please e-mail Carol Nehme at carolnehme16@gmail.com **OR** call the researcher on 70-879424. If, as a result of your participation in this study, you experienced any negative reaction, please contact Dr. Farah El-Zein at Haigazian Univerisity on 01-353010.