AMERICAN UNIVERSITY OF BEIRUT

EFFECTS OF A SOCIAL-EMOTIONAL LEARNING PROGRAM ON SELF-REGULATION, SOCIAL COMPETENCE, EMPATHY AND RESPONSIBILITY OF INTELLECTUALLY ABLE AND LESS ABLE ADOLESCENTS

by
NESSRINE MEHEDDENE MACHAKA

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by

NESSRINE MEHEDDENE MACHAKA

Approved by:

Anies Al-Hroub

Dr. Anies Al-Hroub, Associate Professor — Advisor
Department of Education

Dr. Saouma BouJaoude, Professor — Member of Committee
Department of Education

Dr. Hoda Baytiyeh, Associate Professor — Member of Committee
Department of Education

Date of thesis defense: June 28, 2019

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AN ABSTRACT OF THE THESIS OF

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Title: Effects of a Social-Emotional Learning Program on Self-regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents

SEL is comprised of learning skills needed to establish and maintain personal and interpersonal situations effectively. In this study, we reflect on SEL in the context of Lebanon among intermediate school students whose ages range between 12 and 15 enrolled in a public school in Beirut. The purpose of this study was to (a) examine the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility, (b) examine the difference in self-regulation, social competence, empathy and responsibility between intellectual ability groups when being exposed to an SEL program; and (c) examine the difference in self-regulation, social competence, empathy and responsibility between boys and girls when being exposed to an SEL program. To answer the research questions, an experimental intervention was held in which 63 students participated from both 7th and 8th grade and were divided into two mixed classes, an experimental group and a control one. The control group received regular English lessons with no specific SEL activities, while the experimental group received the SEL activities through English lessons. The intervention was administered for 5 weeks, 3 times a week for 45 minutes each. Data were collected pre- and post-intervention using the Social-Emotional Assets and Resilience Scales (SEARS) and the teaching observational checklist. And data was collected only pre-intervention using the Raven Standard Progressive Matrices test and collecting the school grade point average from the school administration for intellectual ability categorization. Data was later analyzed using MANOVA and MANCOVA which showed a significant effect between research groups in benefiting from the SEL program, yet no significant differential effects between intellectual ability groups and gender. The SEL program used was effective for the research group in improving social competence, empathy, and responsibility, but was not notably effective in improving self-regulation. Also, the SEL program used was beneficial for all students almost at the same level with no discrimination between intellectual ability groups and between girls and boys. Finally, limitations and conclusions from the study were communicated as well as recommendations for future research and practice.

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CHAPTER I

Introduction

Background

Students are not only minds to be educated and bodies to be trained in physical education sessions, but also hearts that need to be nurtured, educated and grown. One possible way, to promote students' emotional growth and help them gain the skills needed to function as social beings, is social-emotional learning. Social-emotional learning programs were found to be effective in equipping students with crucial skills and values as well as fostering the development of their personalities and talents (Sklad, Diekstra, Ritter, Ben & Gravesteijn, 2012).

However, despite their effectiveness, importance, and the emerging awareness of social-emotional learning programs, social-emotional support is relatively scarce in different contexts and especially in Lebanon. Even though social and emotional skills form a sturdy base for teaching children life skills, educational research and practice infrequently attended to them in depth (Oberle, Schonert-Reichl, Hertzman & Zumbo, 2014).

Therefore, the importance of social-emotional learning (SEL) to learners, its positive consequences from childhood to adulthood and more, the scarcity of research on social-emotional learning and the implementation of such programs in school, all draw attention to SEL of 21st-century learners and the risks in the current situation. Possibly, the absence of SEL could lead to undesirable aftermaths especially in this fast-paced world with innumerable challenges (i.e. violence, wars, verbal and physical abuse, bystander apathy …). The exacerbation of such a problem might stretch out to threaten not only the psychological wellbeing of learners, but also their academic status (i.e. completing high school) and their success in life at large (Oberle et al., 2014). Consequently, from an educational perspective,

any support that could be offered by schools to serve the schooling aim and benefit the society in graduating successful citizens should be considered and worked on, especially practice based on research for maximizing the benefits.

Purpose

The purpose of this study is threefold: (a) to examine the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility, (b) to examine the difference in self-regulation, social competence, empathy and responsibility between intellectually able and less able groups when being exposed to an SEL program as compared to the control group; and (c) to examine the difference in self-regulation, social competence, empathy and responsibility between boys and girls when being exposed to an SEL program.

Research Questions

1. What are the effects of social-emotional learning (SEL) on Lebanese intermediate school students' self-regulation, social competence, empathy, and responsibility?
2. Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups?
3. Do SEL activities have differential effects on Lebanese intermediate school boys' and girls' self-regulation, social competence, empathy, and responsibility?

Rationale

Research has shown the importance of social-emotional learning (SEL) programs and the need for such programs to be implemented for children to gain the essential values and skills, and develop their personalities, talents, and abilities to reach their full potential (Sklad,

Diekstra, Ritter, Ben & Gravesteijn, 2012). Critical foundations for adolescents' life skills are provided by social and emotional skills, yet they have received somewhat little attention in research and practice in education (Oberle et al., 2014). Social-emotional skills are essential for students to master in order to graduate from high school and prosper in life (Oberle et al., 2014). A number of research studies explored the effect of SEL programs on students' empathy (Castillo, Salguero, Fernández-Berrocal & Balluerka, 2013), the importance of enhancing responsibility (Vincent, 2013) and developing self-regulation (Edossa, Schroeders, Weinert & Artelt, 2018). These studies have been conducted for students throughout various grade levels. However, no study has directly measured the effects of an SEL program on all the following four competencies together: self-regulation, social competence, empathy, and responsibility. Self-regulation has been considered a critical marker of social-emotional competencies and has also been mentioned as a requirement for social responsibility (Oberle et al., 2014). Self-regulation affects the regulation of emotions and behaviors, and is critical for creating positive social interactions in the classroom and using effective learning strategies; thus, it is stated that it can be considered vital for academic achievement (Oberle et al., 2014). Unfortunately, based on the researcher's investigation, self-regulation is found to be under-researched in Lebanon and it is not emphasized at schools in general, and in Lebanon in particular. Social competence is a significant predictor of future well-being; where children with less intellectual abilities struggle more in emotion regulation than typically-developing adolescents in attaining social competence (Milligan, Phillips & Morgan, 2016). The importance of these competencies in student's school social and academic environment encouraged me to look further on how they are affected with implementing SEL interventions.

Furthermore, findings of previous research suggest a significant role of different contexts (country, region, type of school …) in affecting childhood social-emotional development (Duong & Bradshaw, 2017). Few studies have investigated the links between

different contexts and students' competencies in SEL interventions (Duong & Bradshaw, 2017). Furthermore, the effects of SEL programs on Lebanese students have been under-researched. As Jones, Barnes, Bailey, and Doolittle (2017) stated, interventions should be done in diverse settings and for different types of people because what works, for whom it works, and under what conditions, often differ. Oberle and others (2014) suggest distinguishing between different indicators of SEC and taking into consideration manifold perspectives when evaluating and fostering social–emotional skills in educational environments. Therefore, this study would act as an extension of past research in a different context and with different indicators of SEL. This study will be done in a public school (since SEL is not part of the curriculum) in Beirut – Lebanon and discuss effects at two levels, intellectual ability, and gender.

According to previous literature, when contexts are allied with protective factors or risk factors, positive and negative SEL trajectories are linked to the contexts respectively (Duong & Bradshaw, 2017). Some ecological contexts may be hostile to child development where risk research typically suggests that children living in adverse contexts may be more likely to show negative developmental outcomes (Duong & Bradshaw, 2017). However, other studies showed that some resilient individuals may experience positive adaptation despite living in adverse contexts (Duong & Bradshaw, 2017). Therefore, studying further such individuals in terms of their SEL development will help us better understand which competencies are likely to strengthen the social-emotional development of individuals, and this is supported by a recommendation for future work by Duong and Bradshaw (2017). In Lebanon, which is in itself a developing country, some regions possess certain environments with specific hostility levels different from other regions. This is why in my study, implementing the intervention in only one school minimizes the factors of having students from different contexts participate in the same intervention. Specifically, the presence of risk factors in the community should be

noted when implementing an SEL program since the ecological perspective should not be disregarded when hypothesizing results of SEL interventions (Duong & Bradshaw, 2017). More specifically, studies that involved implementation of SEL programs were mostly conducted in the USA, so the extent to which the SEL framework is appropriate for students in other countries and with different cultural contexts has remained an unclear specificity in studies (Coelho, Sousa, Raimundo & Figueira, 2015). Therefore, conducting such studies in different countries is a priority, and it is strengthened in being found in the list of recommendations by Coelho, Sousa, Raimundo, and Figueira stated (2015). Finally, Lebanon is one of the countries where SEL programs have rarely been studied; nevertheless, even though some school-based SEL programs have been applied in other countries, very few examine the efficacy or effectiveness of school-based SEL programs (Coelho et al., 2015).

As Duong and Bradshaw (2017) state, there is a continuing need for more research to understand the altered contexts' contributions to SEL and development in individuals, and one of the important factors that contribute to the context of the study and should be addressed is the element of grade level in which the SEL program is implemented. The majority of studies analyzed SEL program application with elementary students; however, it is important to note that CASEL (Collaborative for Academic, Social, and Emotional Learning, 2005) recommends that SEL programs be implemented from preschool to high school (Coelho et al., 2015). In addition, Durlak, Weissberg, Dymnicki, Taylor, and Schellinger state that SEL can be successful at all educational levels and in different areas (2011). During middle school, interventions are vital as students become more disconnected from school as they progress from elementary to middle and to high school, where it is estimated that 40 to 60% of high school students become severely disengaged from school during that period (Coelho et al., 2015), this shows the importance of SEL interventions before students reach high school. Also,

several programs have been effective with elementary school students but lacked efficacy in middle school settings (Coelho et al., 2015).

In addition, it is important to explore the role of gender in depth when examining the effects of SEL, and this is supported by the recommendations of Oberle and others (2014) and Romer and others (2011). In addition, studies in the literature analyzed the impact of variables, like student's demographics, that influence the effects of the programs, and some, such as gender or baseline levels of competencies, show mixed results (Coelho et al., 2015). Some studies resulted in specific preferences for girls benefiting more from the SEL program, while other studies showed that there are no significant gender differences in the results of applying an SEL program (Ogurlu, Sevgi-Yalın & Yavuz-Birben, 2018; Romer, Ravitch, Tom, Merrell & Wesley, 2011; von Salisch, Zeman, Luepschen & Kanevski, 2014). Therefore, examining whether there will be significant gender differences when applying the SEL program in Lebanon will certainly add to the literature.

Additionally, literature has shown that SEL interventions were usually implemented but without taking into consideration the ability differences (Espelage, Rose & Polanin, 2016). Some studies claim that SEL interventions may benefit students with different ability groups in diverse ways because such interventions offer more training on functional skills (Espelage, Rose & Polanin, 2016). This is especially because children with learning disabilities are at more risk for social functioning challenges (Milligan, Phillips & Morgan, 2016). Although some studies examined the social-emotional competencies of students with learning disabilities, no studies were found to examine the effects of SEL programs on social-emotional competencies of students with different intellectual abilities. Therefore, it shows that examining how students with different abilities are affected by SEL interventions is an important factor to be researched further. In addition, just as interventions should be examined

with students in different contexts and settings, Milligan, Phillips, and Morgan (2016) recommended that future research should study social competence in students with different abilities across various settings and contexts as well. In general, they suggest more controlled research by independent researchers in order to better understand the effect of the SEL program and students' features, which may manipulate the outcomes, and to take into consideration moderators of change, such as gender and level of cognitive ability (Milligan, Phillips & Morgan, 2016). This suggestion reassures the need for considering gender and intellectual ability as factors to be studied in this research.

Finally, self-regulation, social competence, empathy, and responsibility are variables that have been discussed in the SEL and character education programs but have rarely been assessed after the implementation of such programs, especially in different contexts. Previous findings acknowledged that SEL programs conceded significant positive effects on targeted social-emotional competencies and attitudes about self, others, and school. However, research has rarely exclusively focused on reviewing the impact of SEL programs on diverse students' outcomes (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011). This motivated me to research this topic further and assess the outcomes of an SEL program and the different results for diverse outcomes at the same time.

Significance

This research will add to available literature and enhance practice regarding schools and development/intervention programs needed in schools. In practice, this research can be of use for teachers, counselors, curriculum designers, and school administrations since they can benefit from the results of this study and consider them in their practice and plans. Usually, SEL interventions can be integrated into regular educational practices and do not necessarily need outside recruits for their effective conveyance (Durlak et al., 2011). Therefore, teachers

can benefit from the results of this research by understanding the effect of the SEL program used on adolescents' competencies, where they can integrate in turn SEL activities into their classes. Counselors, curriculum designers, and school administrations can benefit from research in having a case applied in a public school in Lebanon for intermediate school where they can benefit from the study's results when choosing an SEL program to integrate in their curriculum, applying SEL activities for enhancing the specific studied competencies in this study (self-regulation, social competence, empathy, and responsibility), or encouraging interventions in their schools and understanding the effect of such a program if implemented. So this research will be an evidence-based reference for school personnel when thinking about SEL in their own schools. Also, highlighting the issue of the impact of the SEL program on adolescents' self-regulation, social competence, empathy, and responsibility; and whether there are significant differences in the effects of the SEL program by intellectual ability and gender will help raise awareness of the critical need for social-emotional learning at schools, better understand the development of central abilities of students, evaluate the effectiveness of the SEL program used in the Lebanese context, and understand the way students of different abilities and gender are affected by such programs. This will also be significant for research in which such studies will trigger future research and interventions. It will highlight the need of understanding the effects of SEL on Lebanese students, especially in public schools since SEL is not embedded explicitly in the curriculum, and elicit further research specifically around SEL and students with different intellectual abilities.

CHAPTER II

Literature Review

Introduction

In this chapter, an overview is presented of the main aspects of this study. First, a literature review is presented about the importance of social-emotional learning in education and in schools particularly. Second, a conceptual framework for this study is presented through defining social-emotional competencies, understanding their vital role for each individual, and understanding the competencies targeted in this study. Third, a review of previous studies is presented showing the effects of social-emotional learning and the results of interventions previously done. Fourth, understanding the relation between intellectual ability and social-emotional learning and previous studies or the lack of such studies is discussed. Fifth, social-emotional learning and gender differences is reviewed, and previous studies and their outcomes are presented. Finally, an overview of interventions and their importance as a method in research is presented highlighting the specific program that is used in this study.

Social-Emotional Learning and Education

As the world is evolving, the needs of students and the essential skills required for living in the 21st century are changing as well. Schools are constantly reassessing their aims and methods in order to achieve outcomes that suit the modern world, which is challenging for students. Promoting academic learning is a constant challenging concern that schools are facing where social-emotional learning (SEL) is found to be a protective way to address this concern (Linares et al., 2005). Nowadays, youth should be prepared for an uncertain future and society must make sure that they are taught how to soar on their own in this changing era. However, whose responsibility is this? It is known that socialization occurs upon the different interactions

between the counterparts of society (i.e. parents, schools, non-governmental organizations). Therefore, from a psychoeducational perspective, one must ask what can and should schools do to constructively contribute to the future path of youth and society? (Elias, 2014). Being a successful individual in life not only requires one to know the right ways of behaving, but it also requires the individual to have and be able to use the skills that would lead to desirable behaviors (Elias, 2014).

The change that we talk of and the contributions we aspire to achieve start from oneself, own school and the local community in order to lead a massive change. Unfortunately, schools are still emphasizing academic achievement scores at the expense of true learning, dialogue, exchange, conversation, creativity, exploration, and discovery (Elias, 2014). Having the opportunity to be an important part of the socialization of youth, schools have a great role in being a contributing factor toward change. Schools should provide powerful socialization frameworks compatible with powerful messages of character and social-emotional development (Elias, 2014). The fundamental effects schools have in influencing the youth and making a change in societies must not be undermined. Viewing schools as a simulation of life that have the privilege of teaching students essential life lessons and preparing them for their roles as effective citizens of their schools, families, workplaces, and societies (Elias, 2014) is important for every educational institution. Students must learn to apply lessons learned at school, not only at the school setting, but also in multiple other contexts as well. Several skills are necessary for all individuals to be effective in and contributors to the society and the common good. Such skills include fact-finding, exploration, creative problem solving, nonviolent conflict resolution, perspective-taking, involvement in community service, service-learning, service delivery, collaboration, teamwork, understanding how individuals participate in leading entities local to the school, the neighborhood, the country, and internationally (Elias, 2014). These skills, unfortunately, are barely taken into consideration and are beyond the basic

academic skills that schools include in their aims for minimal competence in the 21st-century world. A pedagogy that drives the essential school experiences that contribute to new futures and guide our interactions was stated by Elias in 2014 when discussing the need for whole-school and community-linked approaches. This pedagogy's key elements include reflection, asking questions, making suggestions, reinventing, constructing, conversing, choosing, deliberating, debating, overcoming obstacles, planning and organizing, and evaluating and reconsidering (Elias, 2014). This view of the whole school included skills and essential elements that emphasized social-emotional and character development. Therefore, social-emotional learning and character education must become vital to education and to the building of school culture (Elias, 2014).

Social and emotional factors are vital to learning rather than secondary (Ragozzino et al., 2003). Previous studies with interventions that implemented SEL programs in schools have ascertained various effects of SEL programs on different levels. Improved classroom climate, enhanced academic achievement and bonding to school, and decreased behavior problems and self-reported incidences of victimization are examples of such results (Linares et al., 2005). A study of an intervention of a universal social-emotional learning program at a public school in the U.S.A showed that students who received the program conveyed higher self-efficacy beliefs about learning, demonstrated higher prosocial problem-solving skills, received higher report-card math grades, and their teachers described them as more attentive, socially and emotionally competent, compliant, and non-disruptive (Linares et al., 2005). After realizing the importance of social-emotional learning in the education field and the need for SEL programs in schools, the first step toward this aspired impact is better understanding social-emotional learning and its constituents. Social-emotional learning has specific skills that are required for participatory proficiency in a complex, universal, and multicultural society (Elias, 2014). In addition, in a study done on middle school students, Wentzel (1991) found that socially responsible

behaviors (i.e. sharing, cooperating, and helping others) were positively correlated with school grade point averages (GPA). On the other hand, problem behaviors (i.e. starting fights and breaking rules) were negatively related to academic success (Oberle et al., .2014).

Upon examining the effectiveness of various school-based prevention activities in a meta-analysis by Wilson, Gottfredson, and Najaka's (2001), it was shown that social and emotional learning programs increased attendance and decreased the dropout rate (Ragozzino et al., 2003). In addition, the study done by Ragozzino and others (2003) revealed that SEL programs improved students' attitudes, behaviors, and academic performance. Consequently, developing students' social and emotional competencies aligns with the academic mission of schools and does not divert schools from their primary academic mission. Basic skills for success are the main outcomes provided by social and emotional learning, not just in school, but also eventually in students' personal, civic, and professional lives (Ragozzino et al., 2003).

Social-emotional learning enhances academic performance in various direct and indirect ways. Various skills are acquired through social-emotional learning that positively impact academic achievement. The skills include managing emotions that interfere with learning and concentration, developing motivation and ability to persist even when facing academic challenges, cooperating and working effectively in the classroom and group learning, and setting and working toward academic goals (Ragozzino et al., 2003). In the academic and social aspect, we see that most prosperous students in the classroom are probably active and prosocial in their engagement with school personnel and their classmates as the nature of learning is profoundly social (Ragozzino et al., 2003). In the academic and emotional aspect, it was stated that students tend to academically achieve above the average if they benefit from positive relationships and interactions; teachers' support and warmth can predict student engagement (Ragozzino et al., 2003). Students are connecting emotionally with their peers, feeling supported by educators, having opportunities to use SEL skills in meaningful ways, and

seem to care more about learning. Educators want their students to be knowledgeable, responsible, and caring; SEL is a method in education, which aids students to be successful in school and life. Students are provided with a learning context where they are less likely to act in harmful ways to their health and school performance (Ragozzino et al., 2003). In addition, it is stated that students' academic engagement, commitment, work ethic, and ultimate school success can be facilitated by emotions. For the benefit of all students, schools, and families should commendably address relationships and emotional processes as they are aspects of the educational process that affect how and what students learn (Durlak et al., 2011). Moreover, academic performance, behavior, and health are negatively affected by the lack of connection to the school as students' progress from elementary to middle and high school. This lack of connection to the school is greatly affected by students lacking social-emotional competencies (Durlak et al., 2011).

Having graduating students proficient in core academic subjects is critical, yet, lately, educators, policymakers, and the public generally agree that educational systems should provide more than just this (Durlak et al., 2011). The systems should graduate students who are able to work well with others from different backgrounds in socially and emotionally skilled ways as well as practice healthy behaviors including responsibility and respect. The school plays an important role in raising healthy students by attending not only to their cognitive development, but also to their social and emotional development. However, schools have restricted assets to address all of these areas and extreme pressure is being put on schools to enhance academic performance (Durlak et al., 2011). Research here plays a role in solving the time constraint and competing demands issue for schools. Educators can effectively implement evidence-based approaches with maximum benefits based on the studies done. Many studies documented that social-emotional variables and academic performance are highly connected;

SEL competencies were linked to improved school attitudes and performance (Durlak et al., 2011).

The world is evolving into a more complex place, where many families are experiencing greater social and economic pressures (Greenberg et al., 2017). Greenberg and others (2017) state that the schools and communities as well are becoming more diverse; multicultural and multilingual. Such changes are calling for a new emphasis on teaching students means to manage stress, get along with others and work collaboratively in groups; promoting social-emotional competencies impacts various academic and behavioral outcomes. At large, possessing these 21st-century skills is essential for adult success (Greenberg et al., 2017) by which these adults are not only academically knowledgeable, but also responsible, caring, mature, and healthy members of society (Oberle et al., 2014). Thus, besides being able to read, write, and compute, children need to have skills that will help them develop their plans and goals, cooperate with others and tackle everyday challenges and obstacles (Greenberg et al., 2017). Therefore, children should be socially and emotionally competent to adapt themselves to the complex demands of growth and development in such complex societies and to become successful adults (Coelho et al., 2015).

Understanding the role of social-emotional competence in the school context provides researchers and educators with important indicators of students' social characteristics and functioning. This in return might help in promoting social, emotional, and academic competencies in young people (Oberle et al., 2014). Consequently, SEL interventions provide children with opportunities to learn the life skills needed for successful development. SEL became a widely accepted component of education, and more recently, 97% of teachers reported having SEL beneficial to their students regardless of their socioeconomic background (Greenberg et al., 2017). Schools are advised to educate competent citizens who are independent and critical thinkers and are able to work collaboratively with others and

contribute to a democratic society (Greenberg et al., 2017). Schools as well are responsible to shape adults who are mature future workers, leader and world citizens (Oberle et al., 2014). Within the school context as well, school belongingness and positive peer relationships are directly connected. School belongingness is as well a key factor in promoting positive academic outcomes over time, especially for students with disabilities (Espelage et al., 2016).

One of the common public perceptions is that fostering social and emotional skills in the classroom will take time away from what is perceived to be the central goal of schooling; learners' academic competence. On the other hand, a growing body of evidence supports having students' social-emotional competence (SEC) and academic success to be interrelated. Researchers recommend monitoring and fostering positive social and emotional development of learners in order to enhance their academic growth (Oberle et al., 2014). Similarly, being skilled in social and emotional understanding and competence helps children and adolescents to engage in positive relationships in the classroom and to self-regulate their emotions and behaviors (Oberle et al., 2014). As a result, this helps learners in increasing their focus on the academic curriculum. Based on previous review, Jones and others (2017) advocate for having non-academic skills and competencies (i.e. social-emotional competencies) a central feature of schooling due to their intrinsic value to society and their effectiveness in reducing achievement and behavior gaps.

Studies rooted academic success in social and emotional foundations and failure to develop such competencies can result in numerous difficulties such as academic difficulties. This was also validated by the intervention research on programs done to teach SEC in the schools (Oberle et al., 2014). At large, social, emotional, and academic growth are interconnected and promoting them in schools helps achieve academic goals (i.e. academic competence). For instance, reading achievement in grade 7 can be predicted from learners'

perceptions of their own social responsibility goals and that SEC predicted math achievement, after controlling for their previous achievement (Oberle et al., 2014).

Social-Emotional Competencies (SEC)

The development of social and emotional competencies is growing, whereby interventions are offered to be efficient in promoting the mental health of students (i.e. enhancing their social, emotional, and behavioral competence) and contributing to the prevention of substance abuse, reduction of interpersonal violence and mental health risks (Coelho et al., 2015). Social-emotional competence has been defined in previous literature as "the capacity to recognize and manage emotions, solve problems effectively, and establish and maintain positive relationships with others" (Ragozzino et al., 2003, p.169). Competent people are described by some SEL researchers and program designers as "those who have the abilities to generate and coordinate flexible, adaptive responses to demands and to generate and capitalize on opportunities in the environment" (Durlak et al., 2011, p.406).

Generally speaking, socially and emotionally competent children and adolescents are able to understand, reflect on, and manage their emotions and behaviors. They are also able to solve problems successfully and act appropriately in social situations in different contexts (i.e. home, school, community) (Oberle et al., 2014). In the school context, in particular, SEC relates to cooperation with peers and social functioning in the classroom (Oberle et al., 2014). Similarly, Milligan, Phillips, and Morgan (2016) referred to social competence as the ability to successfully and independently engage in social interactions, establish and maintain relationships with others, and have one's needs and desires met in different contexts.

The theoretical and empirical research conducted by the Collaborative of Academic and Social and Emotional Learning (CASEL; see www.casel.org) highlights major characteristics of SEC. CASEL is a collaborative led by researchers and educators who contribute to the

theory, research, and practice in the field of social and emotional learning (SEL) and development (Elias et al., 1997). CASEL defines SEL as "the process of acquiring and effectively applying the knowledge, attitudes, and skills necessary to recognize and manage emotions; developing caring and concern for others; making responsible decisions; establishing positive relationships; and handling challenging situations adaptively" (Elias et al., 1997, p 1).

From the conceptual framework developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2012), SEL has been characterized as “a process through which individuals develop the requisite skills to successfully perform the following tasks: recognize, understand, and manage one's own emotions; set and accomplish goals; feel and show empathy for others; establish and maintain healthy relationships; navigate social situations; and make responsible decisions" (Duong & Bradshaw, 2017, p. 2). On the other hand, Social and Emotional Learning is defined as: “the process through which children and adults acquire the knowledge, attitudes, and skills to: recognize and manage their emotions; set and achieve positive goals; demonstrate caring and concern for others; establish and maintain positive relationships; make responsible decisions, and handle interpersonal situations effectively” (Payton et al., 2008, p. 6).

The importance of social and emotional variables for academic performance and achievement is frequently being discussed by educators and policymakers; specifically understanding their critical role. Therefore, methods and practices that enhance students' social and emotional development are becoming of great interest (Ragozzino et al., 2003). The social-emotional competencies mentioned by universal SEL programs included problem-solving strategies, affect regulation, stress management, self-efficacious cognitions about learning, and means to be a collaborative and caring member of the classroom (Linares et al., 2005).

Decreasing risk factors and promoting protective mechanisms for positive regulation through integrating competence promotion and youth development frameworks is a main aspect in the SEL approach (Durlak et al., 2011). SEL is defined as "the process of acquiring core competencies to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively" (Durlak et al., 2011, p. 406). Existing literature states that SEL focuses on developing five interrelated sets of affective, cognitive, and behavioral competencies, which are social awareness, relationship skills, self-awareness, self-management, and responsible decision-making (Durlak et al, 2011).

Durlak and others (2011) state that SEL programs are incorporated within school contexts through two sets of educational strategies for the sake of youth development and enhanced school performance. The first set of strategies comprises of instruction in processing, integration, and application of social and emotional skills in contextually, developmentally, and culturally valid ways. The second set of strategies includes the establishment of a safe and caring environment, which encompasses peer and family enterprises, whole-school community-building events, and enhanced classroom management and teaching practices. Schools introducing SEL programs not only aim to teach students the specific SEL skills, but also to build an atmosphere that boosts SEL skills especially in classrooms and through school culture (Greenberg et al., 2017).

According to Greenberg and others (2017), the immediate outcomes of SEL anticipated by the Collaborative for Academic, Social, and Emotional Learning (CASEL) are categorized under five main competencies tackling thoughts, attitudes, and behaviors. These five competencies are self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. The first competency, self-awareness, is described as understanding one's own emotions, values, and personal goals. It includes accurately assessing

your strengths and limitations, possessing a well-grounded sense of self-efficacy and optimism, and having a growth mindset that you can learn through hard work (Greenberg et al., 2017). The second competency, self-management, requires skills and attitudes that help regulate emotions and behaviors. Competence in social awareness involves the ability to take the perspective of people with different backgrounds or from different cultures and to empathize and act with compassion toward others (Greenberg et al., 2017). Relationship skills give children the tools they need to establish and maintain healthy and rewarding relationships and to act in accordance with social norms. Moreover, responsible decision-making requires the knowledge, skills, and attitudes to make constructive choices about personal behavior and social interactions, whatever the setting (Greenberg et al., 2017).

Moreover, it is stated that the three competencies of anger regulation, awareness of own, and awareness of other's emotions, are social and emotional skills that are the basis of the social-emotional competence (von Salisch et al., 2014). Establishing and maintaining friendships is a key aspect of social competence requiring particular social-emotional competencies that may change as individuals grow. One major factor contributing to having intimate friendships is self-disclosure since it reveals internal emotional experiences that are vital in close friendships (von Salisch et al., 2014).

A framework developed by Stephanie Jones categorizes social and emotional skills and behaviors into three primary groups: cognitive regulation, emotional processes, and social and interpersonal skills (Jones et al., 2017). Cognitive regulation encompasses the basic cognitive skills that direct behavior toward an outcome; it is related to the concept of executive function, which encompasses attention, inhibition, and working memory (Jones et al., 2017). Executive functioning is also related to the skills that help individuals prioritize and sequence behavior, select the most appropriate response, keep task-related information in mind, resist distractions, switch between task-related outcomes and different perspectives, base their decisions on

information, and come-up with abstract rules and tack charge of novel situations (Jones et al., 2017). Children utilized these cognitive regulation skills whenever they face situations that require “concentration, planning, problem-solving, coordination, conscious choices among alternatives, or inhibiting impulses” (Jones et al., 2017, p. 51).

On the other hand, emotional processes are skills that help individuals identify, express, and regulate their own emotions and understand the emotions of others as well (Jones et al., 2017). They also provide individuals with a chance to experience different emotions across different contexts and to attend to these emotions in prosocial ways. Such emotional skills are crucial to positive social interactions and forming relationships with peers and adults (Jones et al., 2017). In the absence of such an ability to recognize and regulate one's emotions or empathizing with others, it would be difficult for individuals to maintain their cognitive regulation and to interact positively with others (Jones et al., 2017).

Moreover, social, and interpersonal skills help individuals in interpreting others' behaviors, navigating through social situations and interacting with others effectively. These skills build on emotional knowledge and processes; therefore, individuals should be able to recognize, express, and regulate their emotions before they interact with others (Jones et al., 2017). Individuals who use these social and interpersonal processes efficiently can cooperate, resolve social problems, and coexist smoothly with others (Jones et al., 2017).

Effects of Social-Emotional Learning (SEL)

Research indicated that enhanced success in school and life, greater well-being, increased prosocial behaviors, reduced conduct and internalizing problems, enhanced students' connection to school, better classroom behavior, less future behavioral and emotional problems, and better school performance are promising results to effective mastery of social-emotional competencies, while a range of social, personal, and academic difficulties are

associated with failure to achieve these competencies (Durlak et al., 2011; Greenberg et al, 2017).

Due to mastering SEL competencies, a basis for an improved adjustment and academic performance are reflected in fewer conduct problems and emotional distress, more positive social behaviors, and better grades; resulting in developmental advancement (Durlak et al., 2011). This advancement is a shift from having students driven by external factors to having them act based on internalized beliefs and values, making good decisions, caring for others, and taking responsibility for their choices and behaviors. Upon discussing previous literature, Durlak and others (2011) mentioned several outcomes which SEL programs target such as academic performance, antisocial and aggressive behavior, depressive symptoms, drug use, mental health, problem behaviors, and positive youth development. These outcomes may have been targeted in various strategies; however, a conclusion that school-based interventions are generally effective was made. In the intervention done by the same authors, it was found that after intervention of SEL programs, compared to controls, the skills, attitudes, and social behaviors of students who took the SEL program improved, and fewer conduct problems and lower levels of emotional distress were observed (Durlak et al., 2011). In addition, upon collecting follow-up data at least six months after the intervention, the mean follow-up scales continued to be significant for all outcomes (Durlak et al., 2011).

One meta-analysis, encompassing 213 interventions from kindergarten through 12th grade, reported significant positive effects of SEL programs on the social behavior, conduct problems, and academic achievement; concluding that SEL programs are preventive interventions (Greenberg et al., 2017). An extension of this meta-analysis found that effects of SEL interventions have long-term benefits on the addressed outcomes during the follow-up periods (Greenberg et al., 2017). According to the authors, SEL supports a public health approach to education in which evidence-based SEL interventions universally could

significantly affect public health. Supporting social and emotional competencies lead to positive effects on students during their school phase, and in the future when they become adults too, where the thoughts, skills, and attitudes helped students on various levels (Greenberg et al., 2017). They helped them in understanding and managing emotions, setting and achieving positive goals, and feeling and showing care and concern for others. Moreover, they aided students in developing positive and realistic perceptions about their own competencies, establishing and maintaining positive relationships, and making responsible decisions (Greenberg et al., 2017). In the short run, Greenberg and others (2017) stated that social-emotional competence can enhance self-efficacy and confidence; contribute to greater attachment, commitment, and engagement in the school setting. Moreover, it can develop in individuals more empathy and prosocial behaviors and lessen conduct problems and the chances of risk-taking and experiencing emotional distress (Greenberg et al., 2017). In addition, social-emotional competence can improve test scores and grades (Greenberg et al., 2017), thus contributing to the academic achievement of these individuals too. In the end, these individuals will be ready for college, and eventually, succeed in their careers, establish positive family cultures and work relationships; they will also have better mental health statuses and are more likely to become engaged citizens (Greenberg et al., 2017).

In a study done by Jones, Barnes, Bailey, and Doolittle (2017), 11 school-based interventions were reviewed where short-term and long-term outcomes were stated at the cognitive and emotional levels. The different student-related cognitive outcomes reviewed included executive function tasks, mindfulness, cognitive concentration, and problem-solving. It was established that SEL programs can impact both basic and complex cognitive skills (Jones et al., 2017). Student-related emotional outcomes in the studies reviewed included emotional problems, life satisfaction, emotional control, emotional management, and positive affect. Student-related cognitive outcomes reviewed were social competence, peer nominations of

prosocial behavior and peer acceptance, empathy, perspective taking, and social problem solving. Generally, the studies encompassed a large range of social outcomes and concluded a range of effects, hence, providing empirical evidence that a variety of SEL programs promote essential social skills (Jones et al., 2017). Student-related behavioral outcomes in the reviewed studies included aggression, conduct problems, acceptance of authority, hyperactivity and on-task behavior, absenteeism, depression and anxiety (Jones et al., 2017). Largely, the effects of SEL programs on behavioral outcomes were diverse yet promising. Student-related academic outcomes reviewed differed between SEL programs. In every outcome category, there were statistically significant findings (small to moderate) as well as other insignificant findings for the same outcomes (Jones et al., 2017).

Findings from a relatively large meta-analysis of school-based universal SEL programs across the different grade levels reveal that SEL-programs significantly improved the participating students' social, emotional, and academic competencies (Oberle et al., 2014). When compared to the control groups, students who participated in SEL programs reported better social, emotional, prosocial attitudes, behavior, and improvement in academic achievement (11-percentile points). As the SEL programs terminated, the effects of the program remained unchanging for up to six months (Oberle et al., 2014). Upon scientifically evaluating the inventions on enhancing social-emotional skills, the improvement in the participants' SEC contributed to an increase in their academic skills and achievement. In addition, previous meta-analytic research found that promoting SEL through universal interventions increases academic achievement, learning motivation and cooperation in the classroom. Promoting SEL as well decreases disruptive behavior, non-compliance, and emotional distress (Oberle et al., 2014). Thus, SEL contributes to achievement and the positive development of "the whole student" as stated by the authors. It is important to note that the benefits of effective SEL programs outweigh the costs; these benefits include improved

educational outcomes and reduced substance use, crime, and mental health problems (Oberle et al., 2014).

It is also stated that engaging in meaningful social relationships fosters mental health across the lifespan. In the absence of supportive social relationships, children are more likely to experience low self-esteem, loneliness, social rejection, bullying and peer victimization, and failure (Milligan et al., 2016). Providing children, in particular the academically less abled, with positive and engaging structured social experience could possibly shift their social competence from withdrawal and social isolation into empowerment and engagement. This as well might enable children to more effectively stand up for themselves or others, reach out for help, and express their feelings when hurt (Milligan et al., 2016). Consequently, this decreases their risk of victimization and provides them with chances of better social functioning and mental health (Milligan et al., 2016).

In addition, the way children regulate their emotions impacts the quality of their social relationships (von Salisch et al., 2014). Further, becoming aware of a friend's emotions helps not only in avoiding hurt and rejection when opening up, but also it helps in understanding means to help that friend when needed (von Salisch et al., 2014). In addition, in their review, Duong and Bradshaw (2017) highlighted that children and adolescents who have the key social and emotional competencies outlined by CASEL reported lower mental, emotional, and behavioral problems later in life.

A meta-analysis on SEL programs concluded that 5 to 18 years old students who had been in the universal SEL programs improved at the levels of their social and emotional competencies, attitudes about self, other and school (Coelho et al., 2015). They have also engaged in pro-social behaviors, and reported less conduct and internalizing problems; this program as well improved the learners' academic achievement (Coelho et al., 2015). These SEL programs have to be developmentally and culturally appropriate; they must also promote

the generalization of the newly learned skills and engage students in the learning process. The results of the controlled pre-post study that investigated whether a universal, school-based, social-emotional learning program would promote gains in the social-emotional competencies of Portuguese middle school students, supported having SEL to improve the social and emotional competencies of middle school students (Coelho et al., 2015). Participating students had significantly larger increases in the three of the five competencies analyzed (i.e. increases in social awareness and self-control as well as decreases in the levels of social anxiety) as opposed to the control group (Coelho et al., 2015). The authors confirmed SEL programs with a well-defined manual encompassing precise goals, systemic activities (i.e. with appealing material and are engaging) and if implemented as advised, can positively impact social and emotional competencies of participants; even the brief interventions. Consequently, this could validate having the SEL programs to be efficacious cross-culturally.

Social-Emotional Learning Programs and Intellectual Ability

Literature about SEL interventions and intellectual ability is rarely found in the literature. However, some studies about social-emotional learning and students with learning disabilities can help us get an insight about the relation between SEC and intellectual ability. It is found that students with disabilities not only have academic challenges at school, but also social challenges too (Espelage et al., 2016). Specifically, the increased victimization among students with disabilities is frequently associated with poor prosocial skills and peer rejection. To address this victimization and promote prosocial attitudes and behaviors, prevention programs were implemented (Espelage et al., 2016). These programs included caring, empathy, and intervention in bullying situations in order to reduce the number of students, including those with disabilities, who experience this victimization. However, the impact of these programs on prosocial attitudes and behaviors, and their impact on improving the academic

outcomes for students with disabilities were not clearly established (Espelage et al., 2016). The authors stated that students with disabilities do not have many close friends and are often rejected by their peers who do not have disabilities. Their research indicated that the largest subpopulation of students with disabilities are those with learning disabilities and they happen to have lower social skills compared to their peers without disabilities (Espelage et al., 2016). However, SEL programs help address the deficits among students with disabilities since disabilities are related to empathy and caring. Specifically, with empathy as a social and emotional competence, students with learning disabilities find it challenging to connect emotionally with others since it requires strong social and communication skills (Espelage et al., 2016). Espelage and others (2016) emphasized that SEL programs could increase prosocial skill development and academic performance prominently for students with disabilities. Their study evaluated an SEL program on increasing prosocial behaviors including 123 students with disabilities across 12 schools in the United States; it reported statistical and clinically significant results. Although the results related to empathic concern and caring behaviors were discouraging, all students increased in their empathic concern throughout middle school. The SEL curriculum was proven to prevent bullying among students with disabilities. In addition, students with disabilities, who have received the SEL intervention with instructions for 3 years, had an increase in their grades on the report card by half a grade (Espelage et al., 2016). The students in the intervention schools had better classroom performance than their peers in the control group; which is explained by having behaviors and behavioral deficits to be linked to academic achievement (Espelage et al., 2016).

Moreover, findings from a meta-analysis done on social skills showed that 75% of children with learning disabilities are less socially competent compared to typically developing children (Milligan et al., 2016). Almost half of the children with learning disabilities are often rejected, neglected, or victimized by peers; they tend to have superficial and unstable

friendships, which puts them at increased risk for facing other mental health challenges besides their learning disabilities (Milligan et al., 2016). Therefore, since information processing and social competence are interconnected, many students with learning disabilities face significant challenges with social interactions. Information processing challenges also reveal learning and social competence difficulties (i.e. understanding sarcasm, reading body language, recalling information about social situations) (Milligan et al., 2016). Children with learning disabilities may lack the language skills that makes it harder for them to articulate their ideas with peers. More precisely, challenges with attention were often associated with behavioral challenges during social interactions (Milligan et al., 2016). The authors explain that individuals with learning disabilities experience difficulties in the domain of executive functions; consequently, this could impact their ability in planning, executing and monitoring their behaviors in social interactions (Milligan et al., 2016). They could lack the flexibly to shift their behaviors based on the feedback they receive from peers and environment. This leads them to the conclusion that children with learning disabilities are more likely to experience behavior problems (Milligan et al., 2016).

The study done by Milligan and others (2016) on evaluating the effectiveness of a social competence program for participants with learning disabilities showed that the program benefited not only the youth, but also their families. Interviews with both parents and children noted that children became more able at sharing their thoughts and feelings, initiating conversation, engaging in peer interaction and solving problems in relationships (Milligan et al., 2016). It was concluded that such changes were important since children with learning disabilities are more likely to withdraw from social interactions and report greater feelings of sadness related to social interactions (Milligan et al., 2016). Throughout the treatment, negative behaviors were very low irrespective of the initial level of emotion regulation. Results indicated that even if the social competence group program does not tackle emotion regulation, the

participants indirectly benefited from this program and had higher levels of regulation (Milligan et al., 2016). These results are consistent with previous research highlighting the impact of emotion regulation on social competence and the mediating role of emotion regulation in negative social behaviors. However, different measures showed mixed results with some, like teacher ratings, showing no significant improvement in participants' social competence after the intervention (Milligan et al., 2016).

Thompson (1994) defined emotion regulation as the ‘‘extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially in their intensive and temporal features, to accomplish one's goals" (pp. 27–28). In children with learning disabilities, their ability to manage and modify emotional reactivity contributes to social information processing (Thompson, 1994). Therefore, emotional reactivity in return is impacted by information processing. From a neurobiological perspective, experiencing a strong emotional response limits a child's ability to fully employ their cognitive abilities (i.e. impulse control, cognitive flexibility, social knowledge, perspective-taking abilities, social skills) adding to it the weaknesses entailed by their information processing challenges associated with their learning disability or mental health problems (Thompson, 1994). Children with learning disabilities experience feelings of low self-esteem, failure, shame, and self-doubt, which are associated with the challenges they face at school (Milligan et al., 2016). As a result, many children with learning disabilities tend to regulate these strong emotions by avoiding activities and interactions. This learned behavior could be effective in the short-term; however, this pattern of avoidance prevents children from building their skills. This highlights the fact that social competence interventions that account for emotion regulation abilities help children in accessing their full range of cognitive capacities (Milligan et al., 2016). Consequently, this might help them learn and implement social skills and engage in adaptive social interactions (Milligan et al., 2016).

Social-Emotional Learning and Gender Differences

In a longitudinal study on the relationship between social-emotional competencies (SEC) and academic achievement in early adolescence, taking into account the moderating role of gender, a significant relationship was found between self-reported SEC and gender in predicting the reading scores; SEC was a significant predictor for reading outcomes in males (Oberle et al., 2014). We note that the role of gender is important since literature highlighted that males and females differ in SEC. For instance, Elias and Haynes (2008) found that third-grade girls had significantly higher SEC scores on the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) than boys. Similarly, other researches showed that adolescent girls scored higher than boys on indicators of social and emotional understanding; the girls had more prosocial responses than boys on hypothetical conflict scenarios (Oberle et al., 2014). Moreover, adolescent girls were rated by their peers to behave in a more socially and emotionally competent manner compared to boys, and girls scored higher on self-report measures of perspective taking and empathic concern than boys (Oberle et al., 2014). In addition, teachers often reported that girls have higher levels of social competence than boys (Oberle et al., 2014). Specifically, in the study done by Oberle and others (2014), goals on social responsibility significantly predicted an increase in reading achievement in boys but not in girls due to gender differences in overall social competencies. Previous studies on adolescents and young adults showed that girls seem to score higher on indications of social and emotional understanding than boys. Girls seem to have as well a stronger orientation toward behaving in prosocial ways than boys. On average, girls had significantly higher social responsibility goals on than boys; girls had lower variability in scores than boys (Oberle et al., 2014). For both girls and boys, however, the responsibility scores were in the upper level of the social responsibility goals (Oberle et al., 2014). According to Oberle and colleagues (2014), future research needs to replicate and further investigate gender differences in SEC.

In addition, a study done by von Salisch and colleagues (2014) on 380 middle school students, found that girls had "greater number of friendships, less physical and verbal aggression, more social support seeking, more explaining, and reconciling when angry at a friend, paying more attention to own and others' feelings, and the likelihood of self-disclosing" (p. 692). On the other hand, the number of boys' mutually confirmed friendships remained constant over seventh grade, girls' reciprocal friendships however decreased significantly with time (von Salisch et al., 2014). Also, in a study done in Portugal, a school-based social-emotional learning program showed significantly increased levels of self-control for both genders among middle school students (Coelho et al., 2015). The program was also able to increase social awareness and to reduce social isolation and social anxiety of girls only (Coelho et al., 2015). As recommended by the authors, these results should be further studied in the future analysis of SEL programs as well. Similarly, Taylor and his colleagues (2002) reported that a Social Competency Program among sixth graders increased the levels of self-concept among boys and developed assertiveness and better middle school adjustment among girls. On the other hand, in their study, Farrell and Meyer (1997) reported that a program against violence for sixth-grade students did not only decrease violent behavior among boys solely, but among girls as well. Finally, a more comprehensive study by the Conduct Problems Prevention Research Group (CPPRG) (Conduct Problems Prevention Research Group, 2010) on 2937 elementary students reported mixed results between boys and girls upon implementing an SEL program (Coelho et al., 2015). Therefore, we can see that results from literature show mixed results when examining the effects of SEL programs on boys and girls.

Social-Emotional Learning in Intermediate School

It is stated that 30% of high school students take part in multiple high-risk behaviors that affect their school performance and threaten their potential for success in their lives (Durlak et al., 2011). Therefore, it is important that schools address the issues students are facing as early as possible when it will not be too late for intervention and as they are developing these habits. Adolescence includes changes at the social, cognitive, and physiological levels. During this phase, young people begin to shift their social focus from their families toward their peers and other contexts in which they develop (Oberle et al., 2014). Therefore, social and emotional skills are important in this phase because they help young adults in positively functioning at school and classroom context, forming healthy relationships with peers and teachers, and fostering positive development of individuals (Oberle et al., 2014).

The Youth Risk Behavior Survey (2015) found that most high school students behave in ways that risk their future along with the different individual and social complexities. Therefore, education should not only consider success in terms of academic achievement, but also as a broader range. These social and emotional competencies also protect the individuals from the effects of exposure to risk factors (Greenberg et al., 2017). It is also indicated that well-implemented SEL programs have positive outcomes and reduce negative outcomes among students across the different preschool and school levels (Greenberg et al., 2017). However, it is important to take into account that adolescents who lack SEC are more likely to face challenges in their social interactions with their teachers and peers (Oberle et al., 2014). This, as a result, could decrease their connectedness to the classroom and would negatively impact their academic achievement (Oberle et al., 2014). Therefore, this emphasizes the importance of SEL implementation for adolescents at the interediate school grade levels.

SEL Interventions

Greenberg and colleagues (2017) mentioned that a holistic public health approach to education would help treat those affected by the targeted problems, prompt preventions or competence-promotion strategies that might benefit a larger sample of students. However, the degree of risk among the participants determines the type of prevention program needed. The first level of prevention programs is composed of universal interventions designed for the general population; it does not account for the individual risk level (Greenberg et al., 2017). The second level is that of selective interventions, designed for subgroups with one or more risk factor(s) (Greenberg et al., 2017). The third level includes interventions that identify individuals who are suffering from the early signs of behavioral problems but do not meet the diagnostic criteria a disorder (Greenberg et al., 2017). Some studies find little or no effects, while other studies find significant and meaningful results; or some find different results for some groups of students but not for others (Jones et al., 2017).

From a public health approach, universal interventions are important because they target all children and are relatively inexpensive (Greenberg et al., 2017). These interventions contribute as well to adaptive coping and resilience across school, family, and community; they help in reducing and preventing multiple behavior problems (i.e. emotional and behavioral problems, early substance use, delinquency, and school failure) that are predicted by shared risk factors. Moreover, the effects of these universal interventions stretch beyond the individual level to reach the school culture, home, and peers (Greenberg et al., 2017). Universal SEL interventions not only promote healthy skills in children, but they also contribute to change at large (i.e. the norms, skills, and attitudes of the population) and create a "sustaining environment" (Greenberg et al., 2017). The benefits of these interventions on the individuals are negligible, yet the cumulative benefit to the whole population is significant. The most common approach to SEL trains teachers on explicitly teaching social-emotional skills to

students' competencies; they can teach and model these skills and train students on applying them. SEL instruction can be included in various subject matters (i.e. English language arts, social studies, and math) (Greenberg et al., 2017). Teachers can develop these skills with their interactions with students; the interpersonal and the instructional (i.e. collaboration, cooperative learning). Over the past two decades, the research on the development, implementation, and evaluation of SEL programs and policies has grown. Specifically, when the evidence-based SEL programs are effectively implemented, they contribute to durable improvements in the different life domains of the child (Greenberg et al., 2017).

Another study with two comprehensive meta-analytic reviews is compiled and findings from a large number (213 studies in 1 case and 75 studies in the other) of school-based SEL and behavioral learning programs studies are analyzed (Jones et al., 2017). Both reviews highlighted that universal, school-based SEL programs have a statistically significant positive impact on a range of social-emotional and its related outcomes (Jones et al., 2017). The magnitude of the difference in impacts between groups ranged from small to moderate-to-large in some others; this all validates the effectiveness of SEL programs in producing positive changes in students' lives at the levels of the outcomes targeted by the program (Jones et al., 2017). These meta-analyses suggest that SEL interventions are effective; however, the findings on the impact of particular SEL programs are somehow in disagreement. They also state that the intervention is connected with different classroom practices (i.e. teaching strategies, classroom management) and student-related skills (i.e. social and emotional, and sometimes cognitive) as well as transfer outcomes at the levels of behaviors, academics, and mental health (Jones et al., 2017).

Furthermore, recent research findings support having social and emotional competence to be crucial for positive academic development (Taylor & Dymnicki, 2007). These findings are drawn from the studies examining the relationship between social and academic aspects of

development and the evaluations of school-based interventions (Oberle et al., 2014). A study of around 2,400 elementary school students on the developmental trajectory patterns of five key competency outcomes (altruism, empathy, self-efficacy, aggression, and hyperactivity) from middle to late childhood and further assessed their interrelations in multiple contexts. Findings between context and SEL were that empathy and self-efficacy for peer interaction develop in children during late elementary school; on the other hand, risk associations were found between contexts and beliefs about aggression (Duong & Bradshaw, 2017). This emphasizes the high correlation between social-emotional competencies and students' background, community, and home environments.

As for the program used in this study, Positive Action (PA) was chosen. Positive Action is a program used in most of the 11 widely used school-based SEL interventions (Jones et al., 2017). The setting, SEL program targets, program components, and outcomes are the key elements documented in these interventions and are stated to have some differential effects based on the change of one of the key elements (Jones et al., 2017). Therefore, even though there are previous studies done using the PA program, the setting and the context of program implementation should be taken into consideration when documenting results. PA targets skills in two domains; cognitive and social (Jones et al., 2017). Positive Action presented some positive outcomes on emotional problems and life satisfaction (Jones et al., 2017). However, SEL programs mainly showed mixed effects on emotional outcomes ranging from non-significant to moderate. This poses a challenge for understanding how SEL programs affect crucial emotional skills (Jones et al., 2017).

In the study done by Jones, Barnes, Bailey, and Doolittle, they reviewed 11 school-based interventions, findings were not statistically significant and small at the student-level cognitive and emotional outcomes (2017). Student-level social effects ranged from not

significant to small and large, and behavioral student-level outcomes were minor. For the Positive Action program, it showed small to moderate statistically significant impacts on depression and anxiety, and large effects on reducing absenteeism (Jones et al., 2017). It also showed small effects on academic ability and teacher-reported academic motivation, but no study was found to report PA outcomes for different intellectual ability subgroups (Jones et al., 2017). Taking into consideration that schools are different from each other, evaluating different outcome levels will help us identify the features of the environment that foster skill development and consequently assist or obstruct the program's implementation (Jones et al., 2017). Therefore, it is critical to implement the program in different schools to check the efficiency of the program between a school and another; and in my case, this is the first study in the country that tackles different outcome levels. Jones and colleagues recommend that studies should focus on understanding how social and demographic aspects, such as racial/ethnic background, socioeconomic status, and baseline risk or ability, affect the outcomes of different groups of students (2017). This recommendation was based on their finding that some interventions only affected specific subgroups (Jones et al., 2017). Therefore, examining the results of an intervention using a program that was never implemented in a country with participants having different demographics and backgrounds than frequently studied participants (students at US mainly) is a necessity and a gap in literature.

Conclusion

This chapter helped us review previous literature about the importance of social-emotional learning in the educational field, the need for social-emotional competencies for individuals, and the effects of social-emotional learning. Also, this chapter reviewed the interaction between social-emotional learning and both intellectual ability and gender. Finally, this chapter highlighted the importance of interventions as a method for social-emotional

learning. This review helped us better understand the need for social-emotional learning interventions and the mixed results of the levels at which SEL was discussed. This led us to further examine the effects of the social-emotional learning (SEL) on students' self-regulation, social competence, empathy, and responsibility in a country (Lebanon) with rare studies done in intermediate school levels. Moreover, the review encouraged the researcher to study the interaction between the four studied competencies and two variables: intellectual ability subgroups and gender.

CHAPTER III

Methodology

Introduction

In this chapter, we describe the design and variables used in this study. Then, we provide information regarding the population and sample and sampling procedure. The tools used for data collection and the procedure of the data collection are then described and discussed. Finally, data analysis for this study helps relate the findings and the teacher's feedback with the research questions raised.

As mentioned before, the purpose of this study is: to examine (a) the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility, (b) the difference in self-regulation, social competence, empathy and responsibility between intellectual able and less able groups when being exposed to an SEL program as compared to the control group; and (c) the difference in self-regulation, social competence, empathy and responsibility between boys and girls when being exposed to an SEL program.

Research Questions

1. What are the effects of the social-emotional learning (SEL) on Lebanese intermediate school students' self-regulation, social competence, empathy, and responsibility?
2. Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups?

3. Do SEL activities have differential effects on Lebanese intermediate school boys' and girls' self-regulation, social competence, empathy, and responsibility?

Operational Definitions of Study Variables

- **Social-emotional learning: "**the process of acquiring core competencies to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively" (Durlak et al., 2011, p. 406).
- **Self-regulation: "**self-awareness, metacognition, intrapersonal insight, self-management, and direction" (Merrell, 2011, p. 4).
- **Social competence:** "ability to make friends easily" (Merrell, Felver-Gant & Tom, 2011, p. 531), "maintain friendships with peers, engage in effective verbal communication, and feel comfortable around groups of peers" (Merrell, 2011, p. 4).
- **Empathy:** "ability to emphasize with others' situations and feelings" (Merrell, 2011, p. 4) and "understand how other people feel" (Merrell et al., 2011, p. 531).
- **Responsibility:** "ability to accept responsibility, behave conscientiously, and ability to think before acting" (Merrell, 2011, p. 4) and "be dependable, someone others can rely on'' (Merrell et al., 2011, p. 531).
- **Intellectual Ability: "**the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment" (Naglieri, 2003, p. 180). The two main components of general cognitive ability as defined by Raven are "(a) eductive ability: the ability to make meaning out of confusion, the ability to generate high-level, usually nonverbal, schemata which make it easy to handle complexity; and (b) reproductive ability—the ability to absorb, recall, and reproduce information that has been made explicit and communicated from one person to another." (Raven, 2000, p.2).

Research Design and Variables

In this study, we used a pre-test post-test controlled quantitative design to understand the effects of a social-emotional learning (SEL) program, Positive Action (PA), on intermediate school students' social-emotional competencies. Also, we examined whether there is a significant difference between the effects on intellectually able and less intellectually able students, and between boys and girls. The research questions were addressed by a quantitative method using a quasi-experimental design. The control group received regular English lessons with no specific SEL activities, while the experimental group received intervention through implementing SEL activities; where SEL activities were the first independent variable. Both the control and the experimental group took a pre-test and a post-test, which helped us understand the effects of the SEL program on the dependent variables (self-regulation, social competence, empathy, and responsibility). Then, the significant differences of the social-emotional competencies of the intellectually able and less intellectually able intermediate school students due to the SEL program were analyzed; in addition to the significant differences between boys and girls. Therefore, the first mediator variable was the intellectual ability of students where they were classified into intellectually able and less intellectually able students by specific criteria; and the second mediator variable was the gender.

The way to undergo this research was advised by the literature review done. Previous studies showed that students' behaviors and the contexts they live in can be transformed when researchers work directly with individuals through interventions, which can, later on, alter norms broadly. Specifically, it is stated that schools are ultimate sites for interventions with students as most of a student's time of the day is spent there (Greenberg et al., 2017). Therefore, this study contributes to promoting youth development and preventing negative behaviors by holding an intervention in the school context.

Method

Population

The population of this study is grade 7 and 8 Lebanese students in a public school in Beirut who are not exposed to direct SEL programs in their regular school curriculum. Limiting the geographic area in which the students live in and go to school at, and the school in which the students attend, helps in minimizing the sociocultural and economic factors that might be one of the reasons affecting the results of the study.

Sample

The sample size of the population studied is 63 students in a public Lebanese school in Beirut, 25 students from grade 7 and 38 students from grade 8. The control group included 13 grade 7 students and 19 grade 8 students. The experimental group included 12 grade 7 students and 19 grade 8 students. This school does not apply SEL activities as part of its curriculum. Thirty-two (32) students are assigned to the control group, and thirty-one (31) students were assigned to the experimental group. The number of students included in the sample is based on the class size of the school classes having two groups, an experimental and a control one. Choosing students attending the same school helps to gain better insights when analyzing the results and avoid the limitation of having students affected by different school cultures. As for the school selection, the geographic region chosen is Beirut since there is no similar study that has been conducted in this area. Moreover, the school is selected based on the availability and the convenience of the implementation of this intervention.

Sampling procedure. The 7th and 8th grade students attend the same school, the 8th grade students are already assigned to sections by criteria set by the school administration, therefore the sampling procedure is a non-random sampling due to the convenience and the practicality of the intervention. In addition, the 7th graders are assigned to two groups by the school, each group of the 7th grade was assigned randomly to join a grade 8 section. Hence, the sample

consists of two mixed classes, two 8th grade sections, added to them a group from the one 7th grade class. However, the school contacted the grade 8 parents only and ensured that all 8th graders participate, but did not do this effort for grade 7 students. Choosing to keep the students in the same section and normal setting was important to control external factors that may affect the results. The school has a large classroom at the same floor of the regular classrooms; it is used frequently by 7th and 8th grade sections, so students will be in a class and using the same desks. Students who did not agree to participate in the study were not part of the study and the pre- and post-tests administrations. The school administration chose to ask them to participate in something else during intervention sessions. These activities were mostly attending classes with other sections, helping school personnel, or finishing their homework.

Data Collection Tools (Instruments)

Four instruments were used, as follows: (a) The Social-Emotional Assets and Resilience Scales (SEARS) to measure the studied social-emotional competencies, (b) the Raven Standard Progressive Matrices test in order to classify students into two intellectual ability subgroups, (c) the school grade point average to validate the categorization of two intellectual ability subgroups; and (d) the teaching observational checklist to validate receiving the same teaching approaches in the control and experimental groups.

Social-Emotional Assets and Resilience Scales (SEARS). The SEARS is a multi-informant, strength-based, social-emotional assessment system that assesses positive social-emotional attributes of children and adolescents (Nese et al., 2012). Merrell (2011) developed the tool for measuring the self-regulation, social competence, empathy and responsibility of the students. This assessment has two forms, long (35 items) and short (12 items), and it has different forms for teachers, students, and parents. For this study specifically, the long form

items SEARS-Adolescent (SEARS-A), a student self-report for grades 7 through 12 was used. Since the data was collected from the students themselves, the student forms were used. Also, for this study, the full-length version of the SEARS rating form was used since the short form is a companion that is representative of the general constructs measured, so the original form was preferred to be used for reliability reasons. “The more items, the higher the reliability coefficient” (Merrell, 2011, p. 54). The SEARS-A Rating Form consists of 35 sentences that describe ways that people sometimes feel, think, or act. The students rated themselves on each item through circling the letter that best describes them: N for Never, S for Sometimes, O for Often, and A for Always. The subscales measured in this test are self-regulation, social competence, empathy and responsibility. These subscales were previously defined, and each subscale had a specific number of items of the total assessment form. Self-regulation had 8 items, social competence had 10 items, empathy had 11 items, and responsibility had 6 items from the total scale (Merrell, 2011). This tool shows very strong reliability estimates and reveals considerable consistency across items within each SEARS scale. Internal consistency coefficients for the total scores of each of the four SEARS measures range from 0.92 to 0.98. For the SEARS-A, the total score of internal consistency coefficient is 0.93, 0.84 for self-regulation, 0.85 for each of social competence and empathy, and 0.80 for responsibility (Merrell, 2011, p.54). Furthermore, Merrel (2011) reported evidence of this instrument’s validity based on test content, analysis of internal structure, intercorrelations among SEARS scores, relationships to other measures, consequences of testing, and evidence from intervention outcomes. In analysis of internal structure, item communalities were reported to be generally strong with no item having a communality less than 0.20 (Merrell, 2011, p.60). The coefficients obtained when analyzing the intercorrelations between SEARS scale scores and total score were all significant at the $p< 0.01$ level, two tailed where the strength of these correlation coefficients was reported to be moderate to strong which indicates that “the

proposed SEARS scales are compatible with, or somewhat strongly related to, each other and that each scale score has a relatively strong relationship with the total score for that form" (Merrell, 2011, p.65). The intercorrelations between SEARS-A scale scores and total score were 0.8, 0.78, 0.84, and 0.79 for self-regulation, social competence, empathy, and responsibility respectively (Merrell, 2011, p.65).

Raven's Standard Progressive Matrices (SPM) Test. The Raven's Standard Progressive Matrices (SPM) Test was used as one of the methods for intellectual ability categorization in this study. This test is a standardized assessment of nonverbal reasoning in the general population commonly used to measure general intelligence (Abdel-Khalek & Raven, 2006). It is a universal non-verbal test that has been widely accepted due to its proven validity and been used across the whole world in various countries in cross-cultural studies of intelligence (Raven, 2003); specifically, it has been tested in an Arab country, Kuwait, and have shown to be valid with results of normative data in Kuwait similar to those in other countries (Abdel-Khalek & Raven, 2006). It has minimal impact of language skills since it contains abstract shapes and designs, which permit for unbiased scoring (Raven, Raven, & Court, 1998), so this test is appropriate for students whose native language is not English like the case of this study in Beirut, Lebanon. The test is suitable for use with children and teens of age six through sixteen years old (Raven, 2003). This test contains 60 items in 5 sets of 12 that needs 40 to 45 minutes to be completed (Raven, 2003). The reliability and validity of the test are measured and reported to be acceptable with most internal consistency reported in the literature exceeding 0.90 and having a modal value of 0.91 (Raven, 2003). The validity coefficients reported in studies with English and non-English speaking children and adolescents generally range up to 0.70 (Raven, Raven, & Court, 1998).

School Grade Point Average. The second method that helped validate the classification of students into intellectually able and less intellectually able, after performing the Raven test, was the school GPA indicating academic achievement. Academic achievement has been highly correlated as a measurement of intellectual ability in many studies, which applies especially in the case of this study where all students are in the same school with the same grading system. Since the intervention took place at the beginning of the second term of the academic year, the school GPA averaged for the students' previous academic year and first term academic performance was acquired from the school administration for each student. This tool helped validate the Raven Test scores and categorize students into intellectually able and less able.

Teaching Observational Checklist. The classroom practices of teachers are vital to effective program implementation (Jones, Barnes, Bailey & Doolittle, 2017). Therefore, in this study, the teacher for both groups was the same, the researcher, since it is stated that the teacher has an important role in the program implementation. In addition, the mechanisms going on in the classroom were observed, since the environments that surround students may either assist or obstruct skill development (Jones et al., 2017). Recording and observing features of the classroom environment may help us understand variations in students' skills better (Jones et al., 2017). Studies that do record features of the classroom environment usually use the classroom observational measure, which measures teacher-child interaction quality (Jones et al., 2017). Therefore, an external observer to monitor classroom mechanisms completed a teaching observational checklist. Two times for each research group, one for each group towards the beginning of the intervention, and one session towards the end of the intervention phase. This external observer is a graduate student at the American University of Beirut finalizing her masters in Educational Psychology – Tests and Measurement with a Bachelor Degree in Education and a background in teaching and observation. The external observer was briefly trained before observation, she met with the researcher for clarifying all guidelines of

the checklist and her specific role when observing the sessions before the start of the observations.

The Teaching Observational Checklist is a checklist that helps record the teaching mechanics of the teacher (Al-Hroub, 2010). It includes the duration of the lesson, the pace, clarity of the voice of the teacher, whether the teacher involved all the students in the class, took students' questions and input seriously, was open for questions and additional answers, and gave some time after the question (Appendix A). This checklist will ensure consistency of the intervention and increase the reliability of the study trying to understand and control the factor of having the teacher teach unintentionally the two groups with different teaching methods.

Data Collection Procedures

Ethical Considerations. First, after obtaining approval from the University Institutional Review Board (IRB) to conduct the research since it involves human participants (Appendix C), the researcher obtained approval from the Ministry of Education and Higher Education (MEHE) to conduct the study in a public school (Appendix D). Second, the researcher met with the school principal to seek her approval to conduct the study at the school, sign the school administration consent form (Appendix E), and distribute the parental consent forms (Appendix G) for parents of students since the students are underage. After that, the researcher met with the students and explained the child assent forms (Appendix F) after they have read it and asked questions about their participation. Participation in this study did not involve any physical risk or emotional risk beyond the risks of daily life. Also, the teacher and the external observer each signed consent forms for confidentiality and to know their specific roles in this study (Appendix H and I respectively). Finally, participants of the study were anonymous when

the researcher discussed the results of the research for confidentiality, especially the names of the students.

Administration of tools. Before starting the data collection procedure, each participating student was given an ID number in order to keep track of the data collected, but maintain confidentiality at the same time.

For the SEARS instrument, it was administered by the researcher for all the participants before the intervention and after the intervention to collect data about the dependent variables as a pre- and post-test. The tool was administered in the same way for all participants and given the same instructions without pre-exposing them to the intervention plan to be implemented. It took a total of 30 minutes to be administered.

As for the Raven test, it was administered after the SEARS test, only as a pre-test before the implementation of the intervention plan. This test needed a total of 50 minutes to be completed. This helped collect data about the intellectual abilities of the students in order to be able to classify them for the data analysis at a later stage. In addition, the school averages was collected from the school for each participant before the intervention. The participants who met the standards of the criteria set for the Raven test and the school averages together were categorized in the data analysis respectively into intellectually able or less able students. The criteria is explained in the data analysis section. Then, the school averages and Raven Test correlation helped validate these categorizations through comparing the academic performance of students at school with the intellectual ability subgroups. The intellectual ability categorization was not shared with the students to avoid stigma between them, it was only used for the purpose of research.

All the tests were administered for all participants at the same time of the day and with the same introductions and administrator to try to control for external factors that might affect student's answers. This helped establish internal validity in terms of avoiding as much as

possible the effect of history, maturation, and being affected by a pre-test or pre-knowledge about the tests. Finally, the results were collected for data analysis.

Intervention. The social-emotional learning program used for the intervention is Positive Action (PA). A sample lesson of this program that was given to the students is found in Appendix B. PA is a social-emotional learning program, which aims at understanding and managing of self for elementary and intermediate school students (Mihalic, 2018). I have chosen this program for the intervention since it is a universal program used for all races and ethnicities and targets the population that I am addressing in my study, which are intermediate level students (Mihalic, 2018). Moreover, this program has been widely used for interventions throughout the world addressing common topics about the effects of an SEL program on students (Bavarian et al., 2013; Bavarian et al., 2016; Duncan et al., 2017; Flay & Allred, 2003; Lewis et al., 2012; Silverthorn et al., 2017; Snyder et al., 2009; Washburn et al., 2011). It is especially easy to be used internationally because of its featuring of detailed scripted lessons that are easy to teach, the kits of the program that include almost all needed materials, and the minimization of the program for culture bias in their lessons (Mihalic, 2018). In addition, the program highlighted international recognition of the effectiveness of using the PA program in their schools (Ireland, Britain, and Italy) (Mihalic, 2018). Yet, it is important to keep in mind the factor of the language of the program which is English and not the 1st language of Lebanese students.

The intervention sessions were implemented at the same days and times of the day (consecutive periods) to both the control and experimental group. The teacher of the experimental group giving SEL training and the teacher for the control group giving regular English lessons were in both cases the researcher herself to avoid bias of having two different teachers. The researcher has a Bachelor's Degree in Education, is finalizing her masters in Educational Psychology, and has experience in teaching including intermediate school

students. The SEL activities were given for 5 weeks, 3 times a week for 45 minutes each. Two sessions were missed due to unforeseen circumstances that caused the school to close, but the intervention and control group still received same number of sessions since the sessions on the day of school closure were on the same day so the case was similar for both groups all along. Therefore, 12 sessions were given with the last session for wrap up and closure of the intervention phase. Following these 13 sessions, the post-data collection took place.

Finally, an external observer, a graduate student finalizing her masters in Educational Psychology-Assessment with a B.A. in Education, visited the two groups twice each throughout the intervention phase, once at the 3rd session (last session of the 1st week) and once at the 11th session of the intervention phase. The observer observed the teaching mechanics of both the experimental and the control group teaching using the Teaching Observational Checklist. This was an extra validation of having the teacher teach both groups using similar approaches.

The SEL program used during the intervention sessions was imported from the US by the researcher and contained all detailed manuals and materials for implementation. Theme 1 was entitled “Philosophy and Thoughts-Actions-Feelings Circle”, Theme 2 was “Your Body and Mind”, Theme 3 was “Managing Yourself”, Theme 4 was “Treating Others the Way You Like to Be Treated”, Theme 5 was “Telling Yourself the Truth”, and Theme 6 was “Improving Yourself Continually” (Allred, 2019, p. V). SEL activities per week can be found in the Table 3.1 below:

Table 3.1

SEL Activities per Week

Week 1: Philosophy and Thoughts-Actions-Feelings Circle
- Lesson 1: Thinking, Doing, and Feeling Good!
- Lesson 2: Success and Happiness
Week 2: Your Body and Mind
- Lesson 1: Getting Smarter!
- Lesson 2: Yes, No and … That's It!
Week 3: Managing Yourself
- Lesson 1: Managing Our Thoughts
- Lesson 2: Managing Our Actions
- Lesson 3: Managing Our Feelings
Week 4: Treating Others the Way You Like to Be Treated
- Lesson 1: A Code of Conduct
- Lesson 2: Walk a Mile in My Shoes
- Lesson 3: Happy Talk!
Week 5: Telling Yourself the Truth and Improving Yourself Continually
- Lesson 1: Then Who?
- Lesson 2: Stumbling Blocks to Stepping Stones

Under the first theme, Philosophy and Thoughts-Actions-Feelings Circle, Lesson 1's goal was "To learn that thoughts, actions, and feelings work in a circle. This model explains that we feel good about ourselves when we do positive actions" (p. xxi). Lesson 2's goal was "To learn that we are happy and successful when we feel good about who we are, what we are doing, and how we treat others" (p. xxii). Under the second theme, Your Body and Mind,

Lesson 1's goal was "To learn that the intellectual positive actions of being curious and learning new things help us feel good about ourselves" (p. xxii). Lesson 2's goal was "To learn that the intellectual positive actions of making decisions and solving problems in positive ways help us feel good about ourselves" (p. xxiii). Under the third theme, Managing Yourself, Lesson 1's goal was "To learn that the social and emotional positive action of managing our thoughts helps us feel good about ourselves" (p. xxiii). Lesson 2's goal was "To learn that the social and emotional positive action of managing our actions helps us feel good about ourselves" (p. xxiii). Lesson 3's goal was "To learn that the social and emotional positive action of managing our feelings helps us feel good about ourselves" (p. xxiii). Under the fourth theme, Treating Others the Way You Like to Be Treated, Lesson 1's goal was "To learn that the social and emotional positive action of treating others the way we like to be treated helps us get along with others and feel good about ourselves. This is our inherent Code of Conduct" (p. xxiv). Lesson 2's goal was "To learn that the social and emotional positive action of treating others with empathy helps us feel good about ourselves" (p. xxiv). Lesson 3's goal was "To learn that the social and emotional positive action of communicating positively helps us to feel good about ourselves" (p. xxiv). Under the fifth theme, Telling Yourself the Truth, Lesson 1's goal was "To learn that the social and emotional positive actions of telling ourselves and others the truth by admitting our mistakes and refusing to blame others help us feel good about ourselves" (p. xxv). Under the sixth theme, Improving Yourself Continually, Lesson 1's goal was "To learn the social and emotional positive action of turning our problems into opportunities helps us reach our goals and feel good about ourselves" (p. xxv). (Allred, 2019).

Data Analysis

In order to address the study's questions, various data analyses were conducted. To answer the first question: "What are the effects of the social-emotional learning (SEL) on Lebanese intermediate school students' self-regulation, social competence, empathy, and

responsibility?", a MANOVA test was done. To answer the second and third questions: "Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups as compared to the control group?" and "Do SEL activities have differential effects on Lebanese intermediate school boys' and girls' self-regulation, social competence, empathy, and responsibility?", MANCOVA tests were done.

First, students' raw scores on the SEARS scale and subscales were calculated and analyzed. Descriptive statistics were done and presented in the results section through tables summing up the results found. The means are mainly targeted for understanding the frequencies of the effect of the SEL activities on the participants and comparing groups.

In this study, the independent variables were the SEL activities, intellectual ability, and gender influencing the dependent variables. The dependent variables consisted of four subscales (self-regulation, social competence, empathy and responsibility) and one total scale (total SEARS scale). The main criterion for measuring the effects of the program and students' improvement in the studied social-emotional competencies was calculating their learning progress for their performance on the SEARS test to see how much they learned during the SEL intervention (Al-Hroub & Whitebread, 2019). The learning progress values between pre- and post-tests were computed using SPSS through computing new variables of the difference between post-test scores and pre-test scores for all participants for each subscale and the total SEARS scale. This helped us understand the effect of the intervention between the two research groups and facilitates within-group and between-group comparisons with mediating variables. The intellectual ability subgroups were categorized according to intellectual ability and school average groups. Only those that met the criteria of both were considered in the analysis. According to these variables, several tests were conducted to understand the relationships between independent and dependent variables.

The students were categorized into two groups for each of the Raven test scores and the school average scores according to the median of each. Then, only the students that met the criteria of both groupings were considered for intellectual ability subgrouping and considered in the analysis. Achievement and intellectual ability have been highly correlated in literature. It is stated by McCoach, Yu, Gottfried, and Gottfried (2017) that intelligence and achievement are very related and that school achievement is actually predicted by intelligence. Furthermore, Kumar and Darolia (2017) mentioned that a number of researchers like Flanagan and colleagues (2006) and Hale and colleagues (2006) argued that achievement and intelligence are strongly related.

A test of normality first was made to check the nature of distribution in the studied sample. Based on the test of normality results, the suitable data analysis test was conducted. Multivariate analysis was found to be most suitable in the data analysis of this study. Multivariate analysis has several benefits in research. One benefit is that it helps us avoid the need of conducting several tests one after the other unlike univariate analysis, so it is as if several tests were conducted simultaneously on the same page (Warne, 2014). Also, it allows us to determine the contribution of each variable to the measured outcomes, and to examine combinations of variables (Warne, 2014). Finally, although it is possible to conduct multiple ANOVAs, which would take more time, but doing this increases the possibility of committing Type I error (a result that indicates that a supposed effect or correlation exists when in facts it does not); therefore, using multivariate analysis of variance reduces committing Type I error in research (Warne, 2014). Also, tests of between subjects in multivariate analysis help determine the nature of the effect, where they revealed the results of F and ρ values just as if a one-way ANOVA was conducted on each dependent variable independently (Field, 2013).

Multivariate Analysis tests helped the researcher check if there are significant differences between answers in the SEARS test along the four subscales (self-regulation, social

competence, empathy and responsibility) on several levels: between those who received SEL activities and those who didn't, between intellectually able and less able students in the experimental group compared to the control group, and between boys and girls in the experimental group.

CHAPTER IV

Results

Introduction

This chapter presents the findings of the data analysis conducted based on the research questions of this study. The statistical tests mentioned in the previous chapter are presented below with the corresponding tables and graphs for clarification. Table 4.1 below presents the means and standard deviations of the pre- and post-scores for the total SEARS, Raven test, and school averages for both groups.

Table 4.1

Means and Standard deviations of the pre- and post-scores on total SEARS scale, Raven test, and school averages for the experimental and control groups

Statistics	SEARS pre	SEARS post	Raven Test	School Average
Mean	64.51	65.81	40.43	11.70
SD	11.06	14.05	7.52	1.97
Min[1]	42	19	22	8.61
Max[2]	88	97	54	15.70

1. Min: Minimum 2. Max: Maximum

Test of Normality

First, the data were tested for normality. Table 4.2 shows a summary of the learning progress scores' description and normality tests. Results show that the distribution was asymmetrical across post-empathy scale scores (skewness value -1.01), moderately skewed across pre-empathy, post-social competence, post-total SEARS scale, self-regulation learning progress, responsibility learning progress, and total SEARS learning progress scores (skewness values -0.75 – -0.52), and approximately symmetrical across pre-self-regulation, pre-social competence, pre-responsibility, pre-total SEARS, post- self-regulation, post-responsibility scale, social competence learning progress, and empathy learning progress

scores (skewness values -0.34 – 0.19); which was supported by having all absolute values of skewness values and kurtosis values less than 3 times the standard error respectively, which shows that we have skewness issues in the data. The visual examination of histograms also revealed the dominant pattern of moderately skewed distribution for learning progress scores. Therefore, we treat the study sample as mainly skewed, which explains the use of conservative *p* values of both 0.05, in addition to 0.01, to interpret significant research findings. Furthermore, having a mainly skewed distribution of scale scores and having number of participants respectively small (n=63), we used the median for subgroups separation instead of the mean.

Table 4.2

Learning Progress Scores Descriptions and Normality Tests

Learning Progress	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
Self-regulation	63	0.36	5.48	-0.75	0.30	0.70	0.60
Social competence	63	0.28	4.45	-0.18	0.30	-0.51	0.60
Empathy	63	0.68	4.16	-0.26	0.30	-0.46	0.60
Responsibility	63	-0.03	3.25	-0.58	0.30	0.36	0.60
Total SEARS	63	1.30	12.00	-0.57	0.30	-0.17	0.60

Note. "A general guideline for ***skewness*** is that if the number is greater than +1 or lower than –1, this is an indication of a substantially skewed distribution" (Hair et al., 2017, p. 61). If skewness is between -1 and -0.5 or between 0.5 and 1, the distribution is moderately skewed. If skewness is between -0.5 and 0.5, the distribution is approximately symmetric. For ***kurtosis***, the values between -2 and +2 are considered acceptable in order to prove normal distribution (George & Mallery, 2010).

Effect of SEL Activities

In order to answer the first question "What are the effects of social-emotional learning (SEL) on Lebanese intermediate school students' self-regulation, social competence, empathy, and responsibility?", we used Multivariate Analysis of Variance (MANOVA) test to determine whether there are significant differences between the two research groups when exposed to two

different treatments (control group and experimental group receiving SEL activities). MANOVA test was performed where the independent variable was the SEL activities \ and the multiple dependent variables were the learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scale. Multivariate tests are converted into approximate *F*s where several multivariate statistics tests result. When the sample sizes are equal, Pillai's trace is the most robust multivariate statistics test (Field, 2013). Also, when the group differences are focused on one variate, which is the SEL activities in this case, Roy's Largest Root is important to report (Field, 2013). Using Pillai's trace and Roy's largest root, there was a significant effect of intervention on self-regulation, social-competence, empathy, responsibility, and total SEARS scale, [V = 0.28 and $\theta = 0.39$ respectively, $F(4, 58) = 5.67$, $p = 0.001$ (< 0.05)]. Therefore, the research groups (experimental/control) differ significantly with respect to the dependent variables in favor of the experimental group.

Since the multivariate tests showed a significant effect, we did a follow-up ANOVA since the nature of this effect is not clear from the multivariate test statistics. It tells us nothing about whether the effect of the intervention was on self-regulation, social-competence, empathy, responsibility, the total-SEARS scale, or a combination of some of the variables. Table 4.3 demonstrates the frequencies of the participants of the study by research group, intellectual ability, and gender.

Table 4.3

Frequencies of the participants of the study by research group, intellectual ability, and gender

Research Group	Intellectual Ability Group	Male			Female			Total	
		Count	Row %	Column %	Count	Row %	Column %	Count	Column %
Control	Intellectually less able	17	89.5	70.8	2	10.5	25.0	19	59.4
	Intellectually Able	7	53.8	29.2	6	46.2	75.0	13	40.6
	Total	24	75.0	100.0	8	25.0	100.0	32	100.0
Experimental	Intellectually less able	11	91.7	55.0	1	8.3	11.1	12	41.4
	Intellectually Able	9	52.9	45.0	8	47.1	88.9	17	58.6
	Total	20	69.0	100.0	9	31.0	100.0	29	100.0
Total	Intellectually less able	28	90.3	63.6	3	9.7	17.6	31	50.8
	Intellectually Able	16	53.3	36.4	14	46.7	82.4	30	49.2
	Total	44	72.1	100.0	17	27.9	100.0	61	100.0

Table 4.4 presents the means and standard deviations of the learning progress for the subscales and total SEARS for both groups. The results revealed significant differences between the experimental and control groups in favor of the experimental group on social-competence [$F(1,61) = 10.45$, $p = 0.002$ (< 0.01)], empathy [$F(1,61) = 5.31$, $p = 0.025$ (< 0.05)], responsibility [$F(1,61) = 6.73$, $p = 0.012$ (< 0.05)], and total SEARS scale [$F(1,61) = 8.75$, $p = 0.004$ (< 0.01)]. However, no significant differences were reported on the self-regulation skills.

Table 4.4

Means and Standard deviations of the learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scales for the experimental and control groups

Measured Scales	Intervention Group	*N*	Mean of Learning Progress	*SD*	Min[1]	Max[2]	*F*	Sig.
Self-regulation	Control	32	0.03	5.11	-17	10	0.24	0.627
	Experimental	31	0.71	5.89				
	Total	63	0.36	5.48				
Social Competence	Control	32	-1.37	4.78	-9	10	10.45	0.002**
	Experimental	31	2.00	3.37				
	Total	63	0.28	4.45				
Empathy	Control	32	-0.47	4.09	-8	7	5.31	0.025*
	Experimental	31	1.87	3.95				
	Total	63	0.68	4.16				
Responsibility	Control	32	-1.03	3.64	-8	10	6.73	0.012*
	Experimental	31	1.00	2.42				
	Total	63	-0.03	3.25				
Total SEARS	Control	32	-2.84	11.11	-31	26	8.75	0.004**
	Experimental	31	5.58	11.50				
	Total	63	1.30	12.00				

2. Min: Minimum 2. Max: Maximum

* Significant at level $p < 0.05$ ** Significant at level $p < 0.01$

Therefore, no significant group difference resulted on self-regulation independently, but the groups did significantly differ on social competence, empathy, responsibility, and the total SEARS's learning progress independently, and along a combination of all the dependent variables together. Figure 4.1 below represents a line graph that illustrates the significant relationships reported in Table 1 comparing the learning progress of experimental to the control group.

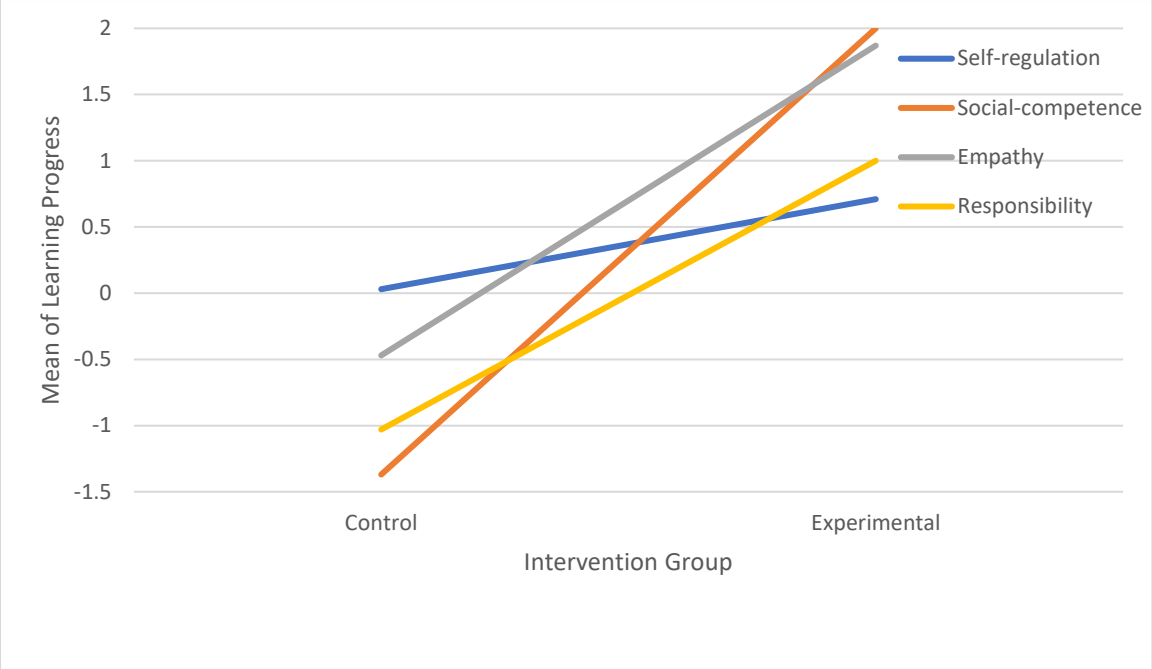


Figure 4.1

Line graph illustrating learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scales for the experimental and control groups.

Intellectual Ability and Social-Emotional Competencies

In order to answer the second question "Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups in the experimental group as compared to the control group?", we used MANCOVA (Multivariate Analysis of Covariance) test to determine whether there are any statistically significant differences between the learning progress means of the intervention groups (control / experimental), having controlled for a continuous mediating variable which is intellectual ability. Based on the test of normality results, the medians were used to categorize the students into intellectual ability subgroups. Students were categorized using the median into two subgroups for each, the Raven test and the school averages. Then, only those who met the criteria of both the Raven test categorization and the school averages categorization were categorized for the study as intellectually able and less able students. Two students were

excluded from this part of the study since they did not meet the criteria for intellectual ability categorization, having 61 students in total for this research question analysis. Then, MANCOVA test was performed where the independent variable was the SEL activities (control/experimental groups), the mediating variable was the intellectual ability subgroups, and the multiple dependent variables were the learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scale. Using Pillai's trace and Roy's largest root, there was no significant difference between the intervention groups (control / experimental) on the learning progresses of self-regulation, social competence, empathy, responsibility, and the total SEARS scales after controlling for intellectual ability subgroups, [V = 0.044 and $\theta = 0.046$ respectively, $F(4, 54) = 0.62$, $p = 0.651$ (> 0.05), partial $\eta 2 = 0.044$]. Also, the tests of between-subjects effects revealing the F and ρ values just as if a one-way ANOVA was conducted on each dependent variable independently showed non-significant results for all dependent variables, which showed that the intervention groups (control / experimental) did not differ significantly on the learning progress values of self-regulation, social competence, empathy, responsibility, the total SEARS scales, nor along a combination of all dependent variables after controlling for intellectual ability subgroups. Table 4.5 below presents the results of the tests of between-subjects effects of the learning progress on the four subscales and total SEARS scale for both groups resulting from the multivariate tests having controlled for intellectual ability.

Table 4.5

Tests of between-subjects effects of the learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scales for the experimental and control groups controlled for intellectual ability

Measured Scales	*df*	*F*	Sig.	Partial η2
Self-regulation	1	0.00	0.972	0.000
Social Competence	1	1.05	0.310	0.018
Empathy	1	0.94	0.336	0.016
Responsibility	1	0.23	0.637	0.004
Total SEARS	1	0.72	0.399	0.012

* Significant at level $p < 0.05$ ** Significant at level $p < 0.01$

Gender Difference and Social-Emotional Competencies

In order to answer the third question "Do SEL activities have differential effects on Lebanese intermediate school boys' and girls' self-regulation, social competence, empathy, and responsibility?"**,** similar to the second research question, we used MANCOVA test to determine whether there are any statistically significant differences between the learning progress means of the intervention groups (control / experimental), but having controlled for a continuous mediating variable which is for this question gender. MANCOVA test was performed where the independent variable was the SEL activities (control/experimental groups), the mediating variable was gender, and the multiple dependent variables were the learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scale. Using Pillai's trace and Roy's largest root, there was no significant difference between the intervention groups (control / experimental) on the learning progresses of self-regulation, social competence, empathy, responsibility, and the total SEARS scales after controlling for gender, [V = 0.036 and $\theta = 0.038$ respectively, $F(4, 56) = 0.53$, $p = 0.717$ (> 0.05), partial η2 = 0.015]. Also, the tests of between-subjects effects revealing the F and ρ values just as if a one-way ANOVA was conducted on each dependent variable independently showed non-significant results for all dependent variables, which showed that the intervention

groups (control / experimental) did not differ significantly on the learning progress values of self-regulation, social competence, empathy, responsibility, the total SEARS scales, nor along a combination of all dependent variables after controlling for gender. Table 4.6 below presents the results of the tests of between-subjects effects of the learning progress on the four subscales and total SEARS scale for both groups resulting from the multivariate tests having controlled for intellectual ability.

Table 4.6

Tests of between-subjects effects of the learning progress on self-regulation, social-competence, empathy, responsibility, and total SEARS scales for the experimental and control groups controlled for gender

Measured Scales	*df*	*F*	Sig.	Partial η2
Self-regulation	1	0.00	0.990	0.000
Social Competence	1	0.01	0.945	0.000
Empathy	1	1.94	0.169	0.032
Responsibility	1	0.08	0.777	0.001
Total SEARS	1	0.35	0.559	0.006

* Significant at level $p < 0.05$ ** Significant at level $p < 0.01$

Teachers Feedback and Observation

Feedback was obtained from the teacher highlighting the mechanics of teaching students. An external observer observed the two groups and completed the Teaching Observational Checklist (Appendix A) to ensure whether the teacher implemented the lessons in both groups using the same teaching mechanics. This helped examine the structure and fairness of the teaching to minimize having the results affected by different teaching mechanics. The external observer examined the duration and pace of the lesson, clarity of the teacher's voice, and student-teacher relationship using the Teaching Observational Checklist developed by Al-Hroub (2010). The teaching strategies were not the concern of the observer, rather, the flow and structure of the lesson were. After the first round of observation at the beginning of the intervention phase, the observer and the researcher (teacher) held a meeting

to discuss the Teaching Observational Checklist points and discuss them to ensure that students in both the control and experimental groups were equally treated.

Upon obtaining feedback from the teacher highlighting the mechanics of teaching students through the Teaching Observational Checklist (Al-Hroub, 2010), the first observation phase done at the 3rd session of the intervention revealed some slight differences in teaching mechanics between the experimental and control groups. The observer noted that students seemed to be partially disengaged in the control group, while students in the experimental group seemed to be enjoying the lessons. However, the rest of the points on the checklist seemed to have similar results with what the teacher had to provide. This showed that the type of material taught has affected students' motivation to pay attention and participate. The teacher (researcher) did more effort during the intervention phase to engage students and ask more questions. The observer reported at the last observation towards the end of the program that the she found the teaching mechanics to be the same between the two groups, and the control group seemed to be more engaged than the first observation, the experimental group were still engaged as before.

CHAPTER V

Discussion

Introduction

This study added to the literature by addressing a gap in investigating the potential effect of implementing a universal SEL program in a new context -a public school in Beirut, Lebanon- on gender and intellectual ability, which is under-researched. The purpose of this research study was three-fold. First, it aimed at examining the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy, and responsibility. Second, it intended to examine the difference in self-regulation, social competence, empathy and responsibility between intellectually able and less able groups when being exposed to an SEL program as compared to the control group. Finally, it aimed at examining the difference in self-regulation, social competence, empathy and responsibility across genders when exposed to an SEL program. To achieve these purposes, 63 Lebanese intermediate school students participated in a study that held an intervention for 5 weeks having control and experimental research groups, and data about social-emotional competencies was collected pre- and post-intervention.

This chapter will discuss the research questions post-data collection and analysis. It will also present the conclusions, implications and limitations pertaining to this study, as well as recommendations for future research and practice.

Effect of SEL Activities

When examining the effects of social-emotional learning on the studied sample's self-regulation, social competence, empathy, and responsibility, a significant difference between the experimental and control group was reported. All subscales and the total SEARS scale were significantly different across groups, except for self-regulation. This means that the

experimental group receiving social-emotional activities gained skills of social competence, empathy, and responsibility compared to the control group. These results confirm the efficacy of the SEL program that aims in developing social and emotional skills. These findings are supported by literature whereby universal SEL interventions were shown to foster general healthy skills in children and specifically social-emotional competencies (Greenberg et al., 2017; Jones et al., 2017).

According to Merrell and colleague's definition of social competence, when students in this intervention improved in social competence, they gained skills in making friends more easily, better maintaining their friendships with peers, and engaging more effectively in communication as they become more comfortable around their classmates (Merrell, 2011; Merrell et al., 2011, p. 531). Also, according to the specific aspects of the competencies measured by the tool used, we can now assume that intervention of the PA SEL program helped students become more comfortable talking to lots of different people and feel more respected and liked by peers. An important conclusion that can be determined from this study is that if students are facing challenges in their relationships with friends and their comfort around peers, PA might be a key to such challenges where schools and teachers should consider using to improve students' social competence.

Merrell and colleague's definition of empathy helps us understand that the students in this study gained skills in their "ability to emphasize with others' situations and feelings" (Merrell, 2011, p. 4) and in better "understanding how other people feel" (Merrell, Felver-Gant & Tom, 2011, p. 531). The specific aspects measured by the tool used can help us assume that students that took the PA program are now more empathetic with other people such as better understanding the point of view of other people, trying more to help other people when they need help, complimenting others and doing more things for others, and generally caring more about people (Merrell, 2011). Therefore, the PA program facilitated the promotion of empathic

responses. It is found that empathetic abilities are one of the foundations of most important interpersonal relations ranging from mother-child relationships to complex pro-social behavior (Georgi, Petermann & Schipper, 2014). Also, it is important to realize that noticeable effects on empathetic abilities are produced with continuous social interactions and that such skills are found to be learnable and expandable (Georgi et al., 2014). Finally, in addition to all previously mentioned benefits of social and emotional competencies, empathy in specific is critical for reducing aggressive behavior where low levels of empathy can become a risk factor for prospect involvement of children in aggressive behavior (Stavrinides, Georgiou & Theofanous, 2010). This is because research suggests that bullies may lack empathic skills in which they lack the ability to understand their behavior's emotional consequences on other people (Gini et al., 2007). Therefore, schools and teachers with students facing challenges in empathetic skills and bullying should consider SEL programs and continuous support of the development of such competence.

Also, improving responsibility as a competence, according to Merrell, means that students in the experimental group gained skills in their ability to accept responsibility, behave now more conscientiously, and think more before acting (Merrell, 2011). This is specified in the aspects of responsibility measured by the tool used where we can assume that students now are better at making good decisions and other students can rely more on them. It is found that responsibility is associated with successful workers, successful individuals in their academic performance, mental health, and quality of close relationships. Moreover, irresponsibility is correlated with social exclusion and negative social judgements (Wood, Larson & Brown, 2009). Therefore, schools and teachers should address any challenges related to this skill due to its importance for each individual and SEL might be central for such aimed improvements. Consequently, as supported by the literature, the effects of the improved competencies are not only limited to the social and emotional aspects, but to the student's success in life as a whole

and his/her community. Improving social competence, empathy, and responsibility predict enhanced school success (Viglas & Perlman, 2018) and schools should consider SEL in developing these three competencies.

As for self-regulation, there is a notable yet insignificant difference between the two groups on the learning progress scale in favor of the experimental group; both groups showed a slight improvement on this scale, meaning that both groups had an increase in their self-regulation. This could be due to a common environmental factor (e.g. school activity, school personnel…). As for the difference between the two groups, this could be explained by the general trend of increase in skills because of the SEL activities during the intervention. Yet, self-regulation as a skill had less to gain from the intervention's focus than other skills. However, the insignificant results could be attributed to not having sufficient time to influence the competency of self-regulation during the intervention or to practice it and master it. Since self-regulation is defined as **"**self-awareness, metacognition, intrapersonal insight, self-management, and direction" (Merrell, 2011, p. 4), this emphasizes that this competency in specific needs personal effort and practice; it cannot be directly practiced with family, friends, and classmates. Self-regulation is also defined by Viglas and Perlman as "deliberately applying additional flexibility, working memory, and inhibitory control to overt action" (2018, p.1150). So, it is important to note the importance of individual differences in the development of self-regulation (Eisenberg et al., 2010), which could highly affect the results of self-regulation development from an individual to another more than the development of other skills. Healthy development of one's self-regulation is reinforced through the interaction of all the elements in one's environment where the school, classroom, and home can provide practice of self-regulation for lasting positive impacts (Viglas & Perlman, 2018). Perhaps with a longer SEL intervention and more time for interaction and practice, self-regulation would have shown improvement just as other competencies. It is found that when students partake in programs

that openly engage them in tasks that promote self-regulation, the skill will improve over time (Viglas & Perlman, 2018).

It is also important to note that the experimental group showed an improvement, while the control group showed regression in the scales of social competence, empathy, responsibility, and total SEARS's scales. This might be because they did not receive skills to maintain or increase their social-competence, empathy, and responsibility skills. A different explanation would be that the students in the control group, when filling the post-test -having been exposed to the test before- might have had the time to think more about their own skills during the 5 weeks phase and assess themselves more strictly without being exposed to any skills that will increase their rating of themselves on these specific measures. So, in the post-tests, maturity, time, and pre-exposure to the SEC concepts might have played a role where the students the second time truly assessed their competencies in a more accurate way revealing lower scores on their measured competencies than pre-tests. This might not be true for the experimental group since the SEL program improved the assessed competencies, which led students to assess themselves accurately and reflect on what they have learned and benefited from since their first assessment. The regression for the control group skills might be also due to social desirability bias where students in the pre-test might have wanted to impress the researcher or the school, but at the end of the intervention, they no longer cared as they did not benefit from the intervention in improving the assessed skills. Finally, we have to highlight the fact that the program which is in English is implemented in a country where English is not the 1st language, and in a type of school (public) that is known to have students with weak English skills. This might have played an important role in the degree to which the program was beneficial compared to countries that have English as their first language. These are assumptions that need further research and investigation.

Intellectual Ability and Social-Emotional Competencies

When examining the interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups in the experimental group compared to the control group, no significant differences were reported for the learning progress means between the intervention groups. Moreover, the groups reported insignificant results even when examining the group differences for each subscale separately. This means that the groups did not differ significantly by intellectual ability on any of the social-emotional competencies subscales nor on the combination of the scales measured. In this study, all students that are less intellectually able and intellectually able all benefited with almost the same level from the SEL program with no variation found between the ability groups, which is opposed to our expectation that students with less intellectual abilities would benefit more from the SEL program, since less able students usually face more social-emotional challenges than intellectually able students (Milligan, Phillips & Morgan, 2016; Thompson, 1994). This is supported with a study done by Espelage, Rose, and Polanin (2016) where the interaction between emotional competencies and cognitive ability was interpreted and no significant short-term results were shown. However, no further evidence about SEL interventions and intellectual ability is found in the literature according to my knowledge that can help in better understanding the discrepancy between this finding and what is expected from students with less intellectual ability in the literature. This finding could be interpreted based on the universal aspect of the program in which it is assumed to incorporate activities and content constructive for different intellectual abilities and targets all kinds of students with no discrimination. Also, a possible explanation could be that in the context where the study was held, the assumption that less able students usually face more challenges does not apply and that all students are facing similar challenges.

Gender Difference and Social-Emotional Competencies

When examining whether SEL activities have differential effects on Lebanese intermediate school boys' and girls' self-regulation, social competence, empathy, and responsibility, no significant differences were revealed for the learning progress means between the intervention groups, having controlled for gender. When the differential effects of gender on social-emotional competencies upon exposure to SEL programs were examined in the literature, mixed results were obtained (Oberle et al., 2014) with some supporting the findings of this study. In a study done by Coelho and others (2015), the effect of an SEL program intervention revealed no significant results between genders on most social-emotional competencies and this was explained by the use of a universal SEL program. Usually, gender differences in benefitting from the SEL program are explained by gender role stereotypes or one's instinct to think or behave in a specific way. However, universal SEL program should address not only cultural differences, but gender and ability differences as well, yet this seems like a vague concept when examining descriptions of programs. Although it is notable that for this study, the total sample of girls and boys was not proportional having 46 boys and 17 girls participating, this was accounted for in the between-group size leading to a sound analysis between research groups.

On the other hand, since there are various studies that showed significant differences based on gender in social-emotional competencies (e.g., Bosacki & Astington, 1999; Brackett, Mayer, & Warner, 2004; Jaffee & Hide, 2000; Greenberg et al., 2003; Ogurlu et al., 2018; Romer et al., 2011; Sandstrom & Cillessen, 2003; von Salisch et al., 2014; Welsh et al., 2001), the total unequal size number of boys and girls in the study might be a reason for not receiving similar results to these previous studies when examining significant differences between genders. To understand the incompatible results with previous literature in finding significant differences across gender, we discuss some of these studies and their findings.

In the study done by Romer and colleagues (2011), results showed that girls gained significantly higher total scores on all versions of the SEARS tests, yet the difference was generally small. They encouraged examining this issue further but did not discuss the reasons behind these findings. Yet, it is notable to mention that the sample size of this study was respectively large compared to our study, yet the difference was generally small. Therefore, the total sample size of our study is not a direct reason for not detecting the small difference between genders. Also, Ogurlu et al (2018) revealed in their study a statistically significant difference between male and female students in favor of females where girls reported receiving social support than boys; this difference was explained again by the gender differences in nature and characteristics supported by previous research in which it is found that girls and boys think, perceive things, and behave differently which will affect their social-emotional competencies. Furthermore, Bosacki and Astington (1999) reported gender differences in social competencies of social cognition. The increased pressure to adhere to gender-role stereotypes was one of the main explanations provided for the gender differences in the SEC. In addition, Sandstorm and Cillessen (2003) explained gender differences in social-emotional competencies through the different way boys and girls perceive responsibility for their social problems where girls are more likely to reflect on their own roles rather than directly blaming others. This shows that the main explanation for the differential effects of SEL programs between genders in previous studies is explained by different gender characteristics and perception of things.

In our study, an explanation for non-significant differences between genders might be that in this century, gender-role stereotypes are affecting boys and girls less with time where all the gender equity campaigns are arising around the world and social media. Therefore, in this study, a fundamental reason for having boys and girls benefit similarly from the program could be the school or region's culture that might differ from a place to another, and through

years developing more and more towards gender equality in cognition and action. Moreover, von Salisch et al (2014) explained gender differences in social-emotional competencies by stating that girls have more self-disclosure and emotional awareness. It might be true that girls differ originally from boys in social-emotional competencies (Ogurlu et al., 2018); however, this does not mean that both genders cannot benefit equally from social-emotional programs. Finally, the difference between the results of this study and some previous studies that revealed significant differences by gender could be due to the using a universal program that probably has tackled for gender differences and targets girls and boys similarly. Therefore, for this study, we can say that the girls and boys all benefited from the SEL program with no discrimination due to reasons that need to be further researched, whether related to the intervention context (region, school ...) or to the SEL program used in the intervention.

Limitations

This study was done in one school in Beirut – Lebanon with a specific number of students from both genders, for specific grade levels, and in a particular environment and kind of school (public). That said, caution must be taken when generalizing the findings of this study. Each study has its limitations and is not done perfectly as one would aspire. The limitations of this study can be categorized into six domains.

First, the sample size was 63, which is relatively a small sample size for results to be generalized. In addition, the number of girls and boys in the study was not proportional which might restrict the generalization of the findings especially regarding the difference between genders in benefiting from the intervention. As such, the sample of this study might not be representative of students in other schools or settings.

Second, the research groups were mixed classes consisting of both grade 7 and grade 8 students. Students from two different grade levels were taught in the same way and at the same

time. This might have affected our results and should be taken into consideration when discussing the findings. However, in this study, we had to do this for a larger number of participants and for practicality in conducting the study at the specified school.

Third, students at the school were not used to activities, discussions, or group/pair work so they were not always cooperative during the intervention phase. This made the implementation of the program and involvement of students a challenging task. The official curriculum did not focus on teaching students learning skills that are also needed in order for students to benefit fully from the program. Although significant results were reported, having students familiar with the learning skills might have helped students in benefiting more from the program more.

Fourth, although an observer was included to make sure there was a consistency in the teaching strategies and ensure equality in intervention application, the receiving of data were only measured through the recipients themselves. Measurement of social-emotional competencies through the pre- and post-tests were self-reported. This could generate inaccuracies since the student might answer what s/he hopes to be rather than what his/her skills are in fact.

Fifth, this study was done in a public school in Beirut for a specific grade level and using a specific SEL program which is taught in English in a country with English not as its primary language. Although this intervention opened the door for basing more future SEL interventions in Lebanon, which is needed yet rarely researched; however, it should be taken into account that this study is not representative of all students in different settings. Different contexts (country, region, type of school, first language..), different grade levels, or using a different program might not show the same results for the studied competencies.

Sixth, the duration of the intervention (i.e. five weeks) was not ideal and somewhat short, due to the limited time provided by the school to administer the intervention and the

regional circumstances that occurred. This duration of intervention might not be enough for significant results to appear in the social-emotional competencies measured, and between ability groups and different genders. Longer interventions might have revealed findings different from those reported in this study.

Recommendations

Although the researcher tried to control for differences between research groups that might affect the results besides the SEL activities, some factors were out of control due to school facts and practicality. Therefore, taking into consideration the results and limitations of this study, several recommendations for theory and practice will be presented. First, implications for research would suggest including a larger sample in terms of size and diversity (e.g. schools and grade levels) in future interventions is recommended for the sample to be more representative of students in different settings. Conducting such interventions in both public and private schools and in various Lebanese regions and schools is critical. Second, when studying the effect of gender, it would be essential to try to minimize the effect of unequal sample size between boys and girls and ensure proportional sample sizes as much as possible. Third, collecting data from different sources (administration, teachers...) about demonstrating social-emotional competencies for measuring the effectiveness of the program is suggested and not depending solely on one source of data. Fourth, conducting longitudinal interventions, if possible, would give more insight into the long-term effects of the SEL activities. Fifth, future studies should encourage the school administration and teachers to integrate the SEL program into their academic curriculum where they compare the effect of the intervention versus the effect of integrating the program into the curriculum by school teachers. As for practice, suggesting that schools clarify and demonstrate the learning skills for students before applying SEL activities in interventions could help in increasing their efficacy. Also, having results that support the effectiveness of the SEL program used in this study encourages schools to use this

program with intermediate school students in public schools in Lebanon. Finally, this program has been found to be effective for improving social competence, empathy, and responsibility specifically, which could be a guideline for schools seeking to develop such skills in their intermediate school students, which as discussed previously, could enhance their academic performance and serve the schooling purpose in developing successful individuals. In conclusion, this study encourages future research work and practice in Lebanon and other countries at the levels of interventions studies, decision making, ministries, school administrations, counseling, and teaching. Yet, in practice specifically, these results should be taken into consideration when generalizing them.

References

Abdel-Khalek, A., & Raven, J. (2006). Normative data from the standardization of Raven's Standard Progressive Matrices in Kuwait in an international context. *Social Behavior and Personality, 34*, 169-179.

Al-Hroub, A. (2010). Programming for mathematically gifted children with learning difficulties. *Roeper Review, 32*, 259-271.

Al-Hroub, A., & Whitebread, D. (2019). Dynamic Assessment for Identification of Twice-Exceptional Learners Exhibiting Mathematical Giftedness and Specific Learning Disabilities. *Roeper Review*, *41*(2), 129-142.

Allred, C. G. (2019). *Positive action*. Twin Falls, ID: Positive Action.

Bavarian, N., Lewis, K., Acock, A., DuBois, D., Yan, Z., Vuchinich, S., Silverthorn, N., Day, J. & Flay, B. (2016). Effects of a school-based social–emotional and character development program on health behaviors: A matched-pair, cluster-randomized controlled trial. *The Journal of Primary Prevention, 37*, 87-105.

Bavarian, N., Lewis, K., DuBois, D. L., Acock, A., Vuchinich, S., Silverthorn, N., Snyder, F. J., Day, J., Ji, P. & Flay, B. (2013). Using social-emotional and character development to improve academic outcomes: A matched-pair, cluster-randomized controlled trial in low-income, urban schools. *Journal of School Health, 83*, 771-779.

Castillo, R., Salguero, J. M., Fernández-Berrocal, P., & Balluerka, N. (2013). Effects of an emotional intelligence intervention on aggression and empathy among adolescents. *Journal of Adolescence, 36*(5), 883-892.

Coelho, V., Sousa, V., Raimundo, R., & Figueira, A. (2015). The impact of a Portuguese middle school social–emotional learning program. *Health Promotion International*, *32*(2), 292-300.

Collaborative for Academic, Social, and Emotional Learning (CASEL). (2012). *2013 CASEL guide: Effective social and emotional learning programs (preschool and elementary school edition).* Chicago: Author.

Conduct Problems Prevention Research Group (2010). The effects of a multiyear universal social–emotional learning program: The role of student and school characteristics. *Journal of Consulting and Clinical Psychology, 78,* 156–168.

Duncan, R., Washburn, I. J., Lewis, K. M., Bavarian, N., DuBois, D. L., Acock, A. C., Vuchinich, S. & Flay, B. R. (2017). Can universal SEL programs benefit universally? Effects of the positive action program on multiple trajectories of social-emotional and misconduct behaviors. *Prevention Science, 18(*2), 214-224.

Duong, J., & Bradshaw, C. P. (2017). Links between contexts and middle to late childhood social-emotional development. *American Journal of Community Psychology*, *60*(3-4), 538-554.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405-432.

Edossa, A. K., Schroeders, U., Weinert, S., & Artelt, C. (2018). The development of emotional and behavioral self-regulation and their effects on academic achievement in childhood. *International Journal of Behavioral Development*, *42*(2), 192-202.

Eisenberg, N., Valiente, C., & Eggum, N. D. (2010). Self-regulation and school readiness. *Early education and development*, *21*(5), 681-698.

Elias, M. J. (2014). The future of character education and social-emotional learning: The need for whole school and community-linked approaches. *Journal of Research in Character Education*, *10*(1), 37.

Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., et al. (1997). *Promoting social and emotional learning: Guidelines for educators.* Alexandria, VA: Association for Supervision and Curriculum Development.

Espelage, D. L., Rose, C. A., & Polanin, J. R. (2016). Social-emotional learning program to promote prosocial and academic skills among middle school students with disabilities. *Remedial and Special Education, 37*(6), 323-332.

Farrell A. D., Meyer A. L. (1997). The effectiveness of a school- based curriculum for reducing violence among sixth grade students. *American Journal of Public Health, 87,* 979–984.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. London: Sage Publications.

Flanagan, D. P., Ortiz, S. O., Alfonso, V. C., and Dynda, A. M. (2006). Integration of response to intervention and norm referenced tests in learning disability identification: Learning from the Tower of Babel. *Psychology in the Schools,* 43(7), 807-825.

Flay, B. R., & Allred, C. G. (2003). Long-term effects of the Positive Action® program. *American Journal of Health Behavior*, *27*(1), 6-21.

Georgi, E., Petermann, F., & Schipper, M. (2014). Are empathic abilities learnable? Implications for social neuroscientific research from psychometric assessments. *Social Neuroscience*, *9*(1), 74-81.

Gini, G., Albiero, P., Benelli, B., & Altoè, G. (2007). Does empathy predict adolescents' bullying and defending behavior?. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression*, *33*(5), 467-476.

Greenberg, M. T., Domitrovich, C. E., Weissberg, R. P., & Durlak, J. A. (2017). Social and emotional learning as a public health approach to education. *The Future of Children*, *27*(1), 13-32.

Hale, J. B., Kaufman, A., Naglieri, J. A., and Kavale, K. A. (2006). Implementation of IDEA: Integrating response to intervention and cognitive assessment methods. *Psychology in the Schools,* 43(7),753- 770.

Jones, S. M., Barnes, S. P., Bailey, R., & Doolittle, E. J. (2017). Promoting social and emotional competencies in elementary school. *The Future of Children*, *27*(1), 49-72.

Kumar, S., & Darolia, C. R. (2017). An Empirical Examination of Intellectual Abilities and Scholastic Achievement in Normal Children and Children with Learning Disabilities. *Journal of Psychosocial Research*, *12*(2), 425-435.

Lewis, K. M., Bavarian, N., Snyder, F. J., Acock, A., Day, J., DuBois, D. L., Ji, P., Schure, M. B., Silverthorn, N., Vuchinich, S. & Flay, B. R. (2012). Direct and mediated effects of a social-emotional and character development program on adolescent substance use. *The International Journal of Emotional Education, 4*, 56-78.

Linares, L. O., Rosbruch, N., Stern, M. B., Edwards, M. E., Walker, G., Abikoff, H. B., & Alvir, J. M. J. (2005). Developing cognitive-social-emotional competencies to enhance academic learning. *Psychology in the Schools*, *42*(4), 405-417.

McCoach, D. B., Yu, H., Gottfried, A. W., & Gottfried, A. E. (2017). Developing talents: a longitudinal examination of intellectual ability and academic achievement. *High Ability Studies*, *28*(1), 7-28.

Merrell, K. W. (2011). *Social and Emotional Assets and Resilience Scales (SEARS).* Lutz, FL: Psychological Assessment Resources.

Merrell, K. W., Felver-Gant, J. C., & Tom, K. M. (2011). Development and validation of a parent report measure for assessing social-emotional competencies of children and adolescents. *Journal of Child and Family Studies*, *20*(4), 529-540.

Mihalic, S. (2018). Positive action. Retrieved from http://www.blueprintsprograms.com/factsheet/positive-action

Milligan, K., Phillips, M., & Morgan, A. S. (2016). Tailoring social competence interventions for children with learning disabilities. *Journal of Child and Family Studies, 25*(3), 856-869.

Nese, R. N., Doerner, E., Romer, N., Kaye, N. C., Merrell, K. W. & Tom, K. M. (2012). Social Emotional Assets and Resilience Scales: Development of a strength-based short-form behavior rating scale system. *Journal for Educational Research Online, 4*(1), 124-139. Retrieved from http://www.j-e-r-o.com/index.php/jero/article/viewFile/307/146

Oberle, E., Schonert-Reichl, K. A., Hertzman, C., & Zumbo, B. D. (2014). Social–emotional competencies make the grade: Predicting academic success in early adolescence. *Journal of Applied Developmental Psychology, 35*(3), 138-147.

Ogurlu, Ü., Sevgi-Yalın, H., & Yavuz-Birben, F. (2018). The relationship between social–emotional learning ability and perceived social support in gifted students. *Gifted Education International, 34*(1), 76-95.

Payton J., Weissberg R., Durlak J., Dymnicki A., Taylor R., Schellinger K., Pachan M. (2008). *The Positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews.* Collaborative for Academic, Social, and Emotional Learning, Chicago, IL.

Ragozzino, K., Resnik, H., Utne-O'Brien, M., & Weissberg, R. P. (2003). Promoting academic achievement through social and emotional learning. *Educational Horizons, 81*(4), 169-171.

Raven, J. (1989). The Raven Progressive Matrices: A review of national norming studies and ethnic and socioeconomic variation within the United States. *Journal of Educational Measurement, 26*(1), 1-16.

Raven, J. (2000). The Raven's progressive matrices: change and stability over culture and time. *Cognitive psychology, 41*(1), 1-48.

Raven, J. (2003) Raven Progressive Matrices. In R.S. McCallum (Ed), *Handbook of nonverbal assessment* (pp. 175-189). Boston, MA: Springer.

Raven, J., Raven, J.C., & Court, J.H. (1998). *Manual for Raven's Progressive Matrices and Vocabulary Scales*. Oxford: Oxford Psychologists Press.

Romer, N., Ravitch, N. K., Tom, K., Merrell, K. W., & Wesley, K. L. (2011). Gender differences in positive social–emotional functioning. *Psychology in the Schools, 48*(10), 958-970.

Silverthorn, N., DuBois, D. L., Lewis, K. M., Reed, A., Bavarian, N., Day, J., Ji, P., Acock, A. C., Vuchinich, S. & Flay, B. R. (2017). Effects of a school-based social-emotional and character development program on self-esteem levels and processes: A cluster-randomized controlled trial. *SAGE Open, 7*(3), 1-12. DOI: 10.1177/2158244017713238

Sklad, M., Diekstra, R., Ritter, M. D., Ben, J., & Gravesteijn, C. (2012). Effectiveness of school-based universal social, emotional, and behavioral programs: Do they enhance students' development in the area of skill, behavior, and adjustment? *Psychology in the Schools, 49(*9), 892-909.

Snyder, F., Flay, B., Vuchinich, S., Acock, A., Washburn, I., Beets, M., & Li, K. (2009). Impact of a social-emotional and character development program on school-level indicators of academic achievement, absenteeism, and disciplinary outcomes: A matched-pair, cluster-randomized, controlled trial. *Journal of Research on Educational Effectiveness, 3*, 26-55.

Stavrinides, P., Georgiou, S., & Theofanous, V. (2010). Bullying and empathy: a short-term longitudinal investigation. *Educational Psychology, 30*(7), 793-802.

Taylor C., Liang B., Tracy A., Williams L., Seigle P. (2002) Gender differences in middle school adjustment, physical fighting, and social skills: Evaluation of a social competency program. *Journal of Primary Prevention, 23*, 259–272.

Taylor, R. D., & Dymnicki, A. B. (2007). Empirical evidence of social and emotional learning's influence on school success: A commentary on "Building Academic Success on Social and Emotional Learning: What does the Research say". *Journal of Educational and Psychological Consultation, 17,* 2–3.

Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development, 59*(2–3), 25–52. doi:10.1111/j.1540-5834.1994. tb01276.x.

Viglas, M., & Perlman, M. (2018). Effects of a mindfulness-based program on young children's self-regulation, prosocial behavior and hyperactivity. *Journal of Child and Family Studies, 27*(4), 1150-1161.

Vincent, N. (2013). Enhancing responsibility. *Neuroscience and Legal Responsibility*, *13,* 305-333.

von Salisch, M., Zeman, J., Luepschen, N., & Kanevski, R. (2014). Prospective relations between adolescents' social-emotional competencies and their friendships. *Social Development, 23*(4), 684-701.

Warne, R. T. (2014). A Primer on Multivariate Analysis of Variance (MANOVA) for Behavioral Scientists. *Practical Assessment, Research & Evaluation, 19*, 2-4.

Washburn, I. J., Acock, A., Vuchinich, S., Snyder, F., Li, K., Ji, P., Day, J., DuBois, D. & Flay, B. (2011). Effects of a social-emotional and character development program on the trajectory of behaviors associated with social-emotional and character development: Findings from three randomized trials. *Prevention Science, 12*(3), 314-323.

Wentzel, K. R. (1991). Relations between social competence and academic achievement in early adolescence. *Child Development, 62,* 1066–1078.

Wood, D., Larson, R. W., & Brown, J. R. (2009). How adolescents come to see themselves as more responsible through participation in youth programs. *Child Development*, *80*(1), 295-309.

Appendix A

Teaching Observation Checklist

Teaching Observation Checklist

.....Begins and ends class on time

Teaching at about . . . right . . . slow . . . fast pace.

.....Sees that everyone hears questions and answers.

.....Treat students‟ questions seriously.

.....Calls on non-volunteers as well as volunteers.

....Allows time after question for formulation of good answers.

.....Allows time after answer to consider it.

.....Invites alternative or additional answers.

.....Involves a large proportion of the class.

.....Makes sure that students are paying attention.

.....Calls students by name.

....Gives motivational cues.

..... Makes sure that comments or questions have been heard by all.

.....Checks to see whether answer has been understood.

Appendix B

Sample lesson of the SEL Program (PA)

Lesson 2

Thinking, Doing, & Feeling Good!

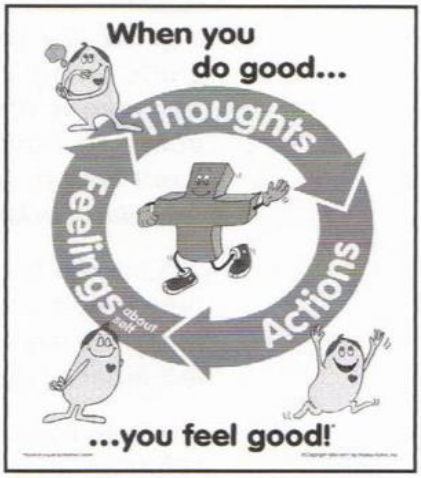
Goal: To learn that **thoughts, actions, and feelings work in a circle.** This model explains that we feel good about ourselves when we do positive actions.

STEP 1

Positive Thoughts

A warm, spicy smell drifted into his bedroom. "Cinnamon French toast! What a great day!" Sam thought. He dashed downstairs and gave his dad a big bear hug. His dad grinned and handed him a plate of French toast.

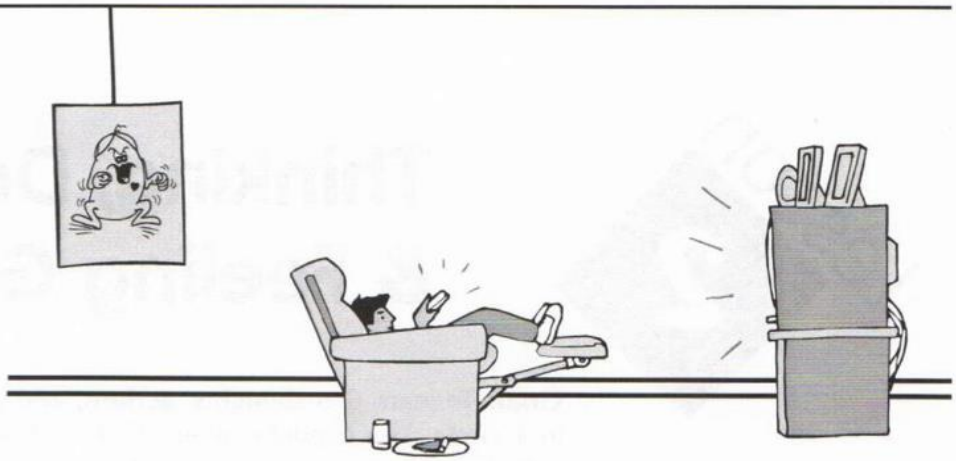
Then Sam thought, "I had such a good day yesterday. I got a good grade on my science test. I'm going to make it another great day! I'm going to have some fun today; I can't wait to see my friends. I really feel like working hard, too."



Sam did make it a great day. He scored well on his math test, made a new friend, and even made all his free throws at basketball scrimmage. A few problems came up during the day, but Sam handled them well. He felt great about himself and his life, and he went to bed happy.

A few mornings later Sam groaned to himself, "I'm too tired to get up. What an awful way to start the day." He was already late when he stumbled into the bathroom. His hair was plastered to one side of his head, and it stuck out straight on the other. Try as he would, he just couldn't make it go where he wanted it to. "What bad hair," he thought. "Nothing is going to work out right today, I just know."

And he was right. For breakfast Sam found a slice of three-day-old pizza in the fridge. He ate an anchovy before he realized it was there. Ugh! He hated anchovies. He dozed off in science (the class he had been trying so hard in), got caught teasing some students at lunch, and missed every



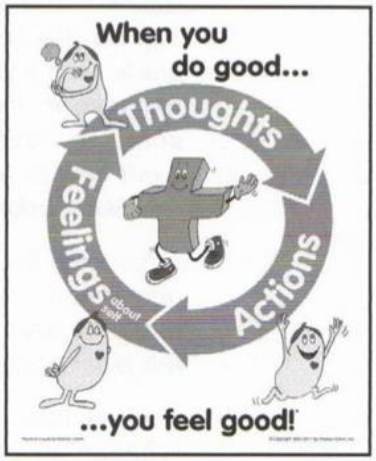
basket in basketball scrimmage. He had problems everywhere. In fact, his whole day was one big problem. At home he quarreled with Anne Marie and wound up watching TV for three solid hours instead of doing his homework. He refused to talk to anyone. Sam went to bed feeling very unhappy.

Sam started out the first day with a positive thought: "I'm going to make it another great day!" That positive thought led to positive actions. And those positive actions helped Sam feel good about himself.

We call this process the **Thoughts-Actions-Feelings Circle.** The Thoughts-Actions-Feelings Circle is a model that explains the main idea of the *Positive Action* program: **We feel good about ourselves when we do positive actions.** Let's take a look at the poster to see how it works.

Materials

Show the positive side of the "Thoughts-Actions-Feelings Circle" Poster.



We have a positive thought that leads to a positive action. That positive action leads to a positive feeling about ourselves. That good feeling leads us to choose another positive thought and put it into action. Each time we choose a positive thought that leads to a positive action, we feel good about ourselves: our self-concept grows even more positive. This positive circle of thoughts, actions, and feelings about ourselves repeats itself as long as we choose to put positive thoughts into action. We refer to this positive Thoughts-Actions-Feelings Circle as the Happy Circle.

Happy Circles are fun to be in. When we're in a Happy Circle, we like ourselves and other people. We feel good about who we are and what we're doing. We do good things with our days. We get a satisfied feeling about ourselves because we are doing the best we can.

Show the negative side of the "Thoughts-Actions-Feelings Circle" Poster.

We've just seen how the Happy Circle works. Unfortunately, there is also an Unhappy Circle. Sam started an Unhappy Circle when he thought,

"What an awful way to start the day." Nothing went right for him after that. He thought negative thoughts, did negative actions, and felt negative about himself.

When we choose to act on negative thoughts, then we do negative actions which make us feel bad about ourselves. And when we choose positive thoughts, then we do positive actions, and we feel good about ourselves. It's that simple. In the Thoughts-Actions-Feelings Circle, as with most things in life, we are either moving forward or we're sliding backward. There is no place to idle, no "neutral circle." We're either building a positive self-concept or a negative self-concept. We are wise to choose positive thoughts because they lead to positive actions, which make us feel good about ourselves.

Not only do our lives improve when we are in the Happy Circle, but the lives of those we affect become more positive, too. When Sam chose the Happy Circle, he affected others in positive ways: he made a new friend, scored for his team, did well in science, and got along with everyone. When he chose the Unhappy Circle, others were affected negatively: he teased some other students, played poorly for his basketball team, refused to study, and quarreled with his sister.

Show the positive side of the "Thoughts-Actions-Feelings Circle" Poster.

Fortunately, we can interrupt an Unhappy Circle and turn it into a Happy Circle. Whenever we find ourselves in a negative circle, we can use our positive thoughts to interrupt it. Then we can do positive actions that will turn the negative circle into a positive circle. We'll feel good about ourselves when we turn our Unhappy Circles into Happy Circles.

Understanding how the Happy Circle model works is one of the most important things we can know because we decide which circle we want to be in. We decide how we want to feel about ourselves by choosing our thoughts and actions. Our self-concept is up to us. Let's think positive thoughts, do positive actions, and feel good about ourselves!

Questions: *How does the Thoughts-Actions-Feelings Circle affect our self-concept? How do our thoughts affect our actions? How do our actions affect our feelings about ourselves? How do we interrupt an Unhappy Circle?*

Appendix C

IRB Approval

AUB American University of Beirut الجامعة الأميركية في بيروت

Institutional Review Board | لجنة الأخلاقيات

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APPROVAL OF RESEARCH

November 28, 2018

Anies Al Hroub, PhD
American University of Beirut
01-350000 ext.: 3064
aa111@aub.edu.lb

Cc:
Rima Karami Akkary, PhD
American University of Beirut
01-350000 ext.: 3058
ra10@aub.edu.lb

Dear Dr. Al Hroub,

On November 28, 2018, the IRB reviewed the following protocol:

Type of Review:	Initial, Expedited
Project Title:	Effects of a Social-emotional Learning Program on Self – regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents
Investigator:	Anies Al Hroub
IRB ID:	SBS-2018-0389
Funding Agency:	None
Documents reviewed:	Received October 25,2018: • Data collection sheets (English version) Received November 26,2018: • IRB application • Proposal • Teacher consent form (English version) • External observer consent form (English version) • School administration consent form (English version) • Child assent form (English version) • Permission for child to participate in research (English and Arabic versions) • Approval from the school

The IRB granted you approval to conduct the study in from November 28, 2018 to November 27, 2019 inclusive. Before September 27, 2019 or within 30 days of study close, whichever is earlier, you are to submit a completed "FORM: Continuing Review Progress Report" and required attachments to request continuing approval or study closure.
If continuing review approval is not granted before the expiration date of November 28, 2019 approval of this research expires on that date.

Please find attached the stamped approved documents:

- Proposal (received November 26,2018),

- Teacher consent form (English version, November 26,2018),
- External observer consent form (English version, November 26,2018),
- School administration consent form (English version, November 26,2018),
- Child assent form (English version, November 26,2018),
- Permission for child to participate in research (English and Arabic versions, November 26,2018),
- Data collection sheets (English version, October 25, 2018).

Only these IRB approved consent forms and documents can be used for this research study.

The IRB noted that Dr. Karami was appointed as an interim PI on your study during your absence.

Thank you.

The American University of Beirut and its Institutional Review Board, under the Institution's Federal Wide Assurance with OHRP, comply with the Department of Health and Human Services (DHHS) Code of Federal Regulations for the Protection of Human Subjects ("The Common Rule") 45CFR46, subparts A, B, C, and D, with 21CFR56; and operate in a manner consistent with the Belmont report, FDA guidance, Good Clinical Practices under the ICH guidelines, and applicable national/local regulations.

Sincerely,

Lina El-Onsi Daouk, MSc
Senior Regulatory Analyst/ IRB Co-administrator
Social & Behavioral Sciences

Cc: Michael Clinton, PhD
Co-Chairperson IRB Social & Behavioral Sciences

Fuad Ziyadeh, MD, FACP, FRCP
Professor of Medicine and Biochemistry
Chairperson of the IRB

Ali K. Abu-Alfa, MD, FASN, FASH
Professor of Medicine
Director, Human Research Protection Program
Director for Research Affairs (AUBMC)

Appendix D

Ministry of Education Approval

وزارة التّربية والتّعليم العالي
المديريّة العامّة للتّربية
الإرشاد والتّوجيه

جانب السّيد المدير العام للتّربية

رقم الصّادر: ١٠/٤٥٥٤
التّاريخ: ٢٠١٨/١٠/٢٤

الموضوع: بيان الرأي حول الدّخول إلى ثانويّة رأس بيروت الرّسميّة.
المرجع: كتابكم رقم: ٣/٩٧٧٢، تاريخ: ٢٠١٨/٩/٢٦.

بالإشارة إلى الموضوع والمرجع المبيّنين أعلاه،

وبعد اطّلاع منسّقة مادّة الإجتماع على كتاب الطّالبة نسرين مشاقة المتضمّن طلب الدّخول إلى ثانويّة راس بيروت الرّسميّة بهدف إجراء دراسة حول "آثار برنامج التّعلّم الإجتماعي العاطفي على التّنظيم الذّاتي والكفاءة الإجتماعيّة والتّعاطف والمسؤوليّة لدى المراهقين،

بناءً عليه،

للتّفضّل بالإطّلاع مع اقتراح الموافقة على دخول الطّالبة نسرين مشاقة إلى ثانويّة رأس بيروت الرّسميّة وإجراء البحث المذكور٪

مديرة الإرشاد والتّوجيه
بالتّكليف
هيلدا ريمون الخوري

COMPUTER وارد

جانب مديرية التعليم الثانوي

بعد الاطلاع مع الموافقة على تسهيل مهمة الطالبة الجامعية نسرين مشاقة لثانوية راس بيروت الرسمية للعام الدراسي ٢٠١٨ على أن يتم إجراء الدراسة المطلوبة على أن يتم ذلك بالتنسيق مع إدارة الثانوية.

- تبلغ نسخة عن الموافقة إلى الطالبة نسرين مشاقة.

المدير العام للتربية
فادي يرق

COMPUTER صادر
مدير التعليم الثانوي بالإنابة

Appendix E

School Administration Consent Form

Study Title: Effects of a Social-Emotional Learning Program on Self-regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents

Dear School Administration,
We are asking for your participation in a **research study**. Participation is completely voluntary. Please read the information below and feel free to ask any questions that you may have.

A. Project Description

The purpose of this study is to (a) examine the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility, (b) examine the difference in self-regulation, social competence, empathy and responsibility between intellectual ability groups when being exposed to an SEL program; and (c) examine the difference in self-regulation, social competence, empathy and responsibility between boys and girls when being exposed to an SEL program.

The present study is an experimental intervention. The main research questions for this study are: (a) Does social-emotional learning (SEL) have a positive effect on Lebanese adolescents' self-regulation, social competence, empathy, and responsibility? (b) Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups in the experimental group? (c) Do SEL activities have differential effects on boys' and girls' self-regulation, social competence, empathy, and responsibility? The participants will include 7^{th} and 8^{th} grade students aged 12-15 divided into two groups, an experimental one and a control one, of 30 students each. The intervention will be administered for 5 weeks, 3 times a week for 45 minutes each.

This study is being conducted for the purpose of a Master's thesis study in Educational Psychology - School Guidance and Counseling at the American University of Beirut. The estimated time to complete this study is one month and a half. The expected numbers of participants are 60 students. The results of data analysis will be published in the form of a thesis report.

B. Procedure:

1. Consent forms will be sent to: school administration to check whether they accept to be part of this study or not.

2. If accepted, consent forms will be sent to: parents to check whether they accept that their children are to be part of this study or not.
3. If accepted, consent forms will be sent to: students to check whether they accept to be part of this study or not.
4. If accepted, students will be given ID numbers and asked to complete two assessment forms before the intervention, one will take 50 minutes to complete, and the other will take 30 minutes to complete. The assessments are intended to collect data about their social-emotional competencies and their general intelligence.
5. Data about the students' GPA of the past academic year will be collected for research analysis purposes.
6. The class section including its students will then be randomly chosen to be the control group or the experimental group. One section will be taking regular English lessons and the other section will be receiving the program.
7. The program will last for 5 weeks.
8. After the program, all students will be asked to complete an assessment form about their social-emotional competencies which takes 30 minutes to complete.

No video or audio taping will be involved. Also, all data collected will be confidential and when results are being discussed, the data will be anonymously presented, and will be archived till the thesis publication is over then responsibly destroyed.

C. Risks and Benefits

Participation in this study does not involve any physical risk or emotional risk beyond the risks of daily life. Participants have the right to withdraw their consent or discontinue participation at any time for any reason. However, your students will be learning either extra English lessons or social-emotional skills. Also, the school will receive no direct benefits from participating in this research; however, the outcome of this study is expected to have theoretical and practical implications.
Moreover, to ensure justice between all students of both groups, the social-emotional learning lessons that were given to the experimental group are offered to be given by the researcher to the control group later on during the academic year after the research is over, if the school administration wishes so.

D. Confidentiality

During this research, all information will be private. Each student will be given an ID number just to track data for the same student, names will not be mentioned anywhere in the study. Data with IDs will be shared only with the research team, while any further results discussion will not include an ID nor a name of the student.
Efforts will be made to keep your student's study-related information confidential. All data from this study will be maintained in a secure locked drawer in a locked office or on a password protected computer. Data will only be reported in the aggregate. No names of individual children will be disclosed in any reports or presentations of this research. However, there may be circumstances where this information must be released. For example, personal information regarding your students' participation in this study may be disclosed if required by law. Also, your students' research data may be reviewed by the following group (as applicable to the research):

- The AUB Institutional Review Board or Office of Human Research Protections

After the conclusion of the study, the Principal Investigator will retain all original study data in a secure location for at least three years to meet institutional archiving requirements. After this period, data will be responsibly destroyed.

E. Contact Information

For questions, concerns, or complaints about the study you may contact Dr. Anies Al-Hroub at 01-350000 ext. 3064 or by email: aa111@aub.edu.lb or Ms. Nessrine Machaka at 70-078578 or by email: nmm40@mail.aub.edu.
For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institutional Review Board at 01- 350000 or 01-374374, Ext: 5445 or by email: irb@mail.aub.edu.

F. Participant Rights

Participation in this study is voluntary. There are no monetary rewards for participation of the school or students in the study. Your decision not to participate is no way influences your relationship with AUB. A copy of this consent form will be given to you. Your decision will not result in any penalty or loss of benefits.

If you agree that your 7th and 8th grade students participate in the study, please sign below:

Consent of school administration Mr. / Mrs.: _____

Date: _____

Co-Investigator's Signature: ___ _____

Principal Investigator (PI): Dr. Anies Al-Hroub
Address: American University of Beirut (AUB)
Associate Professor of Educational Psychology & Special Education
Phone: (01) 350 000 Ext: 3060/3064
Email: aa111@aub.edu.lb

Co-Investigator (CO-PI): Nessrine Machaka
Address: Graduate Student
Phone: (70) 078578
Email: nmm40@mail.aub.edu

Appendix F

Child Assent Form

AUB Social & Behavioral Sciences Assent to Participate in Research

Study Title: Effects of a Social-Emotional Learning Program on Self-regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents

Principal Investigator (PI): Dr. Anies Al-Hroub
Address: American University of Beirut (AUB)
Associate Professor of Educational Psychology & Special Education
Phone: (01) 350 000 Ext: 3060/3064
Email: aa111@aub.edu.lb

Co-Investigator (CO-PI): Nessrine Machaka
Address: Graduate Student
Phone: (70) 078578
Email: nmm40@mail.aub.edu

- **You are being asked to be in a research study. Studies are done to find better ways to treat people or to better understand how kids think about things or how kids and adults may behave at different times.**
- **This form will tell you about the study to help you decide whether or not you want to participate.**
- **You should ask any questions you have before making up your mind. You can think about it and discuss it with your family or friends before you decide.**
- **It is okay to say "No" if you don't want to be in the study. If you say "Yes" you can change your mind and quit being in the study at any time without getting in trouble.**
- **If you decide you want to be in the study, an adult (usually a parent) will also need to give permission for you to be in the study.**

1. What is this study about?

This study is about understanding better the social-emotional learning of adolescents in Lebanon, and whether a specific program is benefiting them as expected.

2. What will I need to do if I am in this study?

If you are part of this study, you will have to:

1. Fill an assessment about your social-emotional competencies at the beginning and at the end of the study (which will take 30 minutes to complete each time).
2. Fill an assessment about general intelligence at the beginning of the study (which will take 50 minutes to complete).
3. Participate in receiving lessons as part of this research. You might be chosen to take regular English lessons as the control group, or the social-emotional program as the experimental group.
4. Your GPA of your past academic year will be collected for research purposes.

3. How long will I be in the study?

This study will take a maximum of 6 weeks to be completed.
A week in total for assessments, and 5 weeks for the program.

4. Can I stop being in the study?

You may stop being in the study at any time. You may discontinue completing the test at any time, but you must remain at your desk in this room until the test period ends.

5. What bad things might happen to me if I am in the study?

This study will be completely anonymous when showing results. I am the only person that will know which data is to which student. Nothing bad will happen to you if you are in this study.

6. What good things might happen to me if I am in the study?

While you are in this study, you will benefit from special lessons that might not be available to other students. Either extra English lessons or a program that will address your social-emotional skills.

7. Will I be given anything for being in this study?

You will not receive anything in return for being in this study. However, you will gain knowledge and benefit from the lessons.

8. Who can I talk to about the study?

For questions about the study you may contact Nessrine Machaka (70078578).

To discuss other study-related questions with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institution Review Board at irb@aub.edu.lb

Signing the assent form

I have read (or someone has read to me) this form. I have had a chance to ask questions before making up my mind. I want to be in this research study.

Signature or printed name of subject	**Date and time** **AM/PM**

Investigator/Research Staff

I have explained the research to the participant before requesting the signature above. There are no blanks in this document. A copy of this form has been given to the participant or his/her representative.

Nessrine Machaka **Printed name of person obtaining assent**	**Signature of person obtaining assent**
	Date and time **AM/PM**

This form must be accompanied by an IRB approved parental permission form signed by a parent/guardian.

Appendix G

Permission for Child to Participate in Research

AUB Social & Behavioral Sciences Parental Permission

Study Title: Effects of a Social-Emotional Learning Program on Self-regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents

Principal Investigator (PI): Dr. Anies Al-Hroub
Address: American University of Beirut (AUB)
Associate Professor of Educational Psychology & Special Education
Phone: (01) 350 000 Ext: 3060/3064
Email: aa111@aub.edu.lb

Co-Investigator (CO-PI): Nessrine Machaka
Address: Graduate Student
Phone: (70) 078578
Email: nmm40@mail.aub.edu

This is a permission form for your child/child for whom you are legal guardian to participate in a research study. It contains important information about this study and what to expect if you decide to permit your child/child for whom you are legal guardian to participate.

Your child's participation is voluntary.

Please consider the information carefully before you decide to allow your child to participate. If you decide to permit participation, you will be asked to sign this form and will receive a copy of the form.

Purpose:
The purpose of this study is to examine the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility; especially between different intellectual ability groups and between boys and girls.

The students will be included in an intervention program where they will be asked to:

5. Fill an assessment about their social-emotional competencies at the beginning and at the end of the study which will take 30 minutes each time to complete

6. Fill an assessment about general intelligence at the beginning of the study which will take 50 minutes in total to be administered
7. Participate in receiving lessons as part of this research for 5 weeks, 3 sessions a week, each taking 45 minutes
8. Their GPA of their past academic year at school will be collected for research analysis purposes

This study is being conducted for the purpose of a Master's thesis study in Educational Psychology - School Guidance and Counseling at the American University of Beirut. The estimated time to complete this study is one month and a half. The expected numbers of participants hoped to participate is 60 7^{th} and 8^{th} graders. The results of data analysis will be published in the form of a thesis report.

Procedures/Tasks:

1. Consent forms will be sent to: school administration to check whether they accept to be part of this study or not.
2. If accepted, consent forms will be sent to: parents to check whether they accept that their children are to be part of this study or not.
3. If accepted, consent forms will be sent to: students to check whether they accept to be part of this study or not.
4. If accepted, students will be given ID numbers and asked to complete two assessment forms before the intervention. The assessments are intended to collect data about their social-emotional competencies and their general intelligence. Also, their GPA of past academic year will be collected.
5. The class section including its students will then be randomly chosen to be the control group or the experimental group. One section will be taking regular English lessons and the other section will be receiving the program. The students that didn't receive the intervention program during the study are offered to receive the program after the study is over upon school administration's approval.
6. The program will last for 5 weeks.
7. After the program, all students, whether in the experimental or control group, will be asked to complete an assessment form about their social-emotional competencies.

No video or audio taping will be involved. Also, all data collected will be confidential and when results are being discussed, the data will be anonymously presented, and will be archived till the thesis publication is over then responsibly destroyed.

Duration:

This study will take 6 weeks to be completed in total.
It will take a day before the intervention for data collection, 30 minutes for the first assessment and 50 minutes for the second assessment, 5 weeks for the intervention, and a day after the intervention for data collection (30 minutes for the assessment).
Your child may leave the study at any time. If you decide to stop your child's participation in the study, there will be no penalty to you, or your child and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship, or that of your child, with AUB.

Risks and Benefits:
Participation in this study does not involve any physical risk or emotional risk beyond the risks of daily life. Participants have the right to withdraw their consent or discontinue participation at any time for any reason. However, your child will be learning either extra English lessons or social-emotional skills. Also, the school will receive no direct benefits from participating in this research; however, the outcome of this study is expected to have theoretical and practical implications. Moreover, please note that the students' relation with the teacher and the school will not be affected if they refuse to participate in the study or decide to stop participating. Finally, students who do not wish to participate in this study might attend as listeners or do another activity outside the session based on the school administration's wish, but no data will be collected about them in any way.

Confidentiality:
During this research, all information will be private. Each student will be given an ID number just to track data for the same student, names will not be mentioned anywhere in the study. Data with IDs will be shared only with the research team, while any further results discussion will not include an ID nor a name of the student.
Efforts will be made to keep your child's study-related information confidential. All data from this study will be maintained in a secure locked drawer in a locked office or on a password protected computer. Data will only be reported in the aggregate. No names of individual children will be disclosed in any reports or presentations of this research. However, there may be circumstances where this information must be released. For example, personal information regarding your child's participation in this study may be disclosed if required by law. Also, your child's research data may be reviewed by the following groups (as applicable to the research):

- The AUB Institutional Review Board or Office of Human Research Protections

After the conclusion of the study, the Principal Investigator will retain all original study data in a secure location for at least three years to meet institutional archiving requirements. After this period, data will be responsibly destroyed.

Incentives:
Your child will receive no payment for participating in this study.

Participant Rights:

You may refuse to allow your child to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at AUB, your decision about whether or not you allow your child to participate in this research will not affect your grades or employment status.

If you choose to allow your child to participate in the study, you may discontinue his/her participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you or your child may have as a participant in this study.

The Social & Behavioral Institutional Review Board responsible for human subjects research at AUB has reviewed this research project and found it to be acceptable, according to applicable Lebanese and U.S. federal regulations and AUB policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:
For questions, concerns, or complaints about the study you may contact Dr. Anies Al-Hroub at 01-350000 ext. 3064 or by email: aa111@aub.edu.lb or Ms. Nessrine Machaka at 70-078578 or by email: nmm40@mail.aub.edu.

For questions about your child's rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institutional Review Board at 01- 350000 or 01- 374374, Ext: 5445 or by email: irb@mail.aub.edu.

Signing the consent form

I have read (or someone has read to me) this form and I am aware that I am being asked to give permission for my minor child (or child under my guardianship) to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to give permission for my child/child under my guardianship to participate in this study, and for their GPA to be accessed by the researcher.

I am not giving up any legal rights by signing this form. I will be given a copy of this form**.**

Printed name of subject	
Printed name of person authorized to give permission for minor subject/participant	**Signature of person authorized to give permission for minor subject/participant (when applicable)**
Relationship to the subject	**Date and time** **AM/PM**

Investigator

I have explained the research to the parent or legal guardian of the child subject/participant before requesting the signature(s) above. There are no blanks in this document. A copy of this form has been given to the parent/legal guardian of the child participant/subject.

Nessrine Machaka

Printed name of person obtaining permission	**Signature of person obtaining permission**
	Date and time **AM/PM**

Appendix H

Teacher Consent Form

Study Title: Effects of a Social-Emotional Learning Program on Self-regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents

Dear Colleague,
We are asking for your participation in a **research study** as a teacher. Participation is completely voluntary without any compensation in connection to your observing activities conducted. Please read the information below and feel free to ask any questions that you may have.

G. Project Description

The purpose of this study is to (a) examine the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility, (b) examine the difference in self-regulation, social competence, empathy and responsibility between intellectual ability groups when being exposed to an SEL program; and (c) examine the difference in self-regulation, social competence, empathy and responsibility between boys and girls when being exposed to an SEL program.

The present study is an experimental intervention. The main research questions for this study are: (a) Does social-emotional learning (SEL) have a positive effect on Lebanese adolescents' self-regulation, social competence, empathy, and responsibility? (b) Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups in the experimental group? (c) Do SEL activities have differential effects on boys' and girls' self-regulation, social competence, empathy, and responsibility? The participants will include 7^{th} and 8^{th} grade students aged 12-15 divided into two groups, an experimental one and a control one, of 30 students each. The intervention will be administered for 5 weeks, 3 times a week for 45 minutes each.

This study is being conducted for the purpose of a Master's thesis study in Educational Psychology - School Guidance and Counseling at the American University of Beirut. The estimated time to complete this study is one month and a half. The expected numbers of participants are 60 students. The results of data analysis will be published in the form of a thesis report.

H. Procedure:

9. Consent forms will be sent to: school administration to check whether they accept to be part of this study or not.

10. If accepted, consent forms will be sent to: parents to check whether they accept that their children are to be part of this study or not.
11. If accepted, consent forms will be sent to: students to check whether they accept to be part of this study or not.
12. If accepted, students will be given ID numbers and asked to complete two assessment forms before the intervention, one will take 50 minutes to complete, and the other will take 30 minutes to complete. The assessments are intended to collect data about their social-emotional competencies and their general intelligence.
13. Data about the students' GPA of the past academic year will be collected for research analysis purposes.
14. The class section including its students will then be randomly chosen to be the control group or the experimental group. One section will be taking regular English lessons and the other section will be receiving the program.
15. The program will last for 5 weeks.
16. After the program, all students will be asked to complete an assessment form about their social-emotional competencies which takes 30 minutes to complete.

You will be giving English lessons through the intervention phase to the control group teaching, or Social-Emotional Learning lessons to the experimental group. The lesson plans are prepared by the research team.
You will be observed by an external observer twice per group through the intervention phase.

No video or audio taping will be involved. Also, all data collected will be confidential and when results are being discussed, the data will be anonymously presented, and will be archived till the thesis publication is over then responsibly destroyed.

I. Risks and Benefits

Participation in this study does not involve any physical risk or emotional risk beyond the risks of daily life. Participants have the right to withdraw their consent or discontinue participation at any time for any reason. However, students will be learning either extra English lessons or social-emotional skills. Also, the school and students will receive no direct benefits from participating in this research; however, the outcome of this study is expected to have theoretical and practical implications.

J. Confidentiality

During this research, all information will be private. Each student will be given an ID number just to track data for the same student, names will not be mentioned anywhere in the study. Data with IDs will be shared only with the researcher, while any further results discussion will not include an ID nor a name of the student. Also, the teacher is not allowed to disclose any information he/she knows. Notes will be saved in a protected document and submitted fully to the researcher.

Efforts will be made to keep students study-related information confidential. All data from this study will be maintained in a secure locked drawer in a locked office or on a password protected computer. Data will only be reported in the aggregate. No names of individual children will be disclosed in any reports or presentations of this research. However, there may be circumstances where this information must be released.

For example, personal information regarding your students' participation in this study may be disclosed if required by law. Also, students' research data may be reviewed by the following group (as applicable to the research):

- The AUB Institutional Review Board or Office of Human Research Protections

After the conclusion of the study, the Principal Investigator will retain all original study data in a secure location for at least three years to meet institutional archiving requirements. After this period, data will be responsibly destroyed.

K. Contact Information

For questions, concerns, or complaints about the study you may contact Dr. Anies Al-Hroub at 01-350000 ext. 3064 or by email: aa111@aub.edu.lb or Ms. Nessrine Machaka at 70-078578 or by email: nmm40@mail.aub.edu.
For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institutional Review Board at 01- 350000 or 01-374374, Ext: 5445 or by email: irb@mail.aub.edu.

L. Participant Rights

Participation in this study is voluntary. There are no monetary rewards for participation of the teacher in the study. Your decision not to participate in no way influences your relationship with AUB. A copy of this consent form will be given to you. Your decision will not result in any penalty or loss of benefits.
You also understand that you are solely a teacher of the lesson plans conducted during the intervention, you are not an employee, or agent of the American University of Beirut.

If you have fully read this entire release, understand it, and agree to volunteer as a teacher in the study, please sign below:

Consent of teacher Mr. / Mrs. (full name): _____
Phone: _____
Date: _____
Co-Investigator's Signature: _____

Principal Investigator (PI): Dr. Anies Al-Hroub
Address: American University of Beirut (AUB)
Associate Professor of Educational Psychology & Special Education
Phone: (01) 350 000 Ext: 3060/3064
Email: aa111@aub.edu.lb

Co-Investigator (CO-PI): Nessrine Machaka
Address: Graduate Student
Phone: (70) 078578
Email: nmm40@mail.aub.edu

Appendix I

External Observer Consent Form

Study Title: Effects of a Social-Emotional Learning Program on Self-regulation, Social Competence, Empathy and Responsibility of Intellectually Able and Less Able Adolescents

Dear Colleague,
We are asking for your participation in a **research study** as an external observer. Participation is completely voluntary without any compensation in connection to your observing activities conducted. Please read the information below and feel free to ask any questions that you may have.

M. Project Description

The purpose of this study is to (a) examine the impact of a social-emotional learning (SEL) program on Lebanese adolescents' self-regulation, social competence, empathy and responsibility, (b) examine the difference in self-regulation, social competence, empathy and responsibility between intellectual ability groups when being exposed to an SEL program; and (c) examine the difference in self-regulation, social competence, empathy and responsibility between boys and girls when being exposed to an SEL program.

The present study is an experimental intervention. The main research questions for this study are: (a) Does social-emotional learning (SEL) have a positive effect on Lebanese adolescents' self-regulation, social competence, empathy, and responsibility? (b) Is there interaction between self-regulation, social competence, empathy, and responsibility and the two intellectual ability subgroups in the experimental group? (c) Do SEL activities have differential effects on boys' and girls' self-regulation, social competence, empathy, and responsibility? The participants will include 7^{th} and 8^{th} grade students aged 12-15 divided into two groups, an experimental one and a control one, of 30 students each. The intervention will be administered for 5 weeks, 3 times a week for 45 minutes each.

This study is being conducted for the purpose of a Master's thesis study in Educational Psychology - School Guidance and Counseling at the American University of Beirut. The estimated time to complete this study is one month and a half. The expected numbers of participants are 60 students. The results of data analysis will be published in the form of a thesis report.

N. Procedure:

17. Consent forms will be sent to: school administration to check whether they accept to be part of this study or not.

18. If accepted, consent forms will be sent to: parents to check whether they accept that their children are to be part of this study or not.
19. If accepted, consent forms will be sent to: students to check whether they accept to be part of this study or not.
20. If accepted, students will be given ID numbers and asked to complete two assessment forms before the intervention, one will take 50 minutes to complete, and the other will take 30 minutes to complete. The assessments are intended to collect data about their social-emotional competencies and their general intelligence.
21. Data about the students' GPA of the past academic year will be collected for research analysis purposes.
22. The class section including its students will then be randomly chosen to be the control group or the experimental group. One section will be taking regular English lessons and the other section will be receiving the program.
23. The program will last for 5 weeks.
24. After the program, all students will be asked to complete an assessment form about their social-emotional competencies which takes 30 minutes to complete.

You will be visiting each group twice throughout the intervention phase to observe the teaching mechanics of both the experimental and the control group teaching and fill the Teaching Observational Checklist. You will sit in a place which doesn't make you so visible for the kids to avoid reactivity.

No video or audio taping will be involved. Also, all data collected will be confidential and when results are being discussed, the data will be anonymously presented, and will be archived till the thesis publication is over then responsibly destroyed.

O. Risks and Benefits

Participation in this study does not involve any physical risk or emotional risk beyond the risks of daily life. Participants have the right to withdraw their consent or discontinue participation at any time for any reason. However, students will be learning either extra English lessons or social-emotional skills. Also, the school and students will receive no direct benefits from participating in this research; however, the outcome of this study is expected to have theoretical and practical implications.

P. Confidentiality

During this research, all information will be private. Each student will be given an ID number just to track data for the same student, names will not be mentioned anywhere in the study. Data with IDs will be shared only with the researcher, while any further results discussion will not include an ID nor a name of the student. Also, the observer is not allowed to disclose any information he/she knows. Notes will be saved in a protected document and submitted fully to the researcher.

Efforts will be made to keep students study-related information confidential. All data from this study will be maintained in a secure locked drawer in a locked office or on a password protected computer. Data will only be reported in the aggregate. No names of individual children will be disclosed in any reports or presentations of this research. However, there may be circumstances where this information must be released.

For example, personal information regarding your students' participation in this study may be disclosed if required by law. Also, students' research data may be reviewed by the following group (as applicable to the research):

- The AUB Institutional Review Board or Office of Human Research Protections

After the conclusion of the study, the Principal Investigator will retain all original study data in a secure location for at least three years to meet institutional archiving requirements. After this period, data will be responsibly destroyed.

Q. Contact Information

For questions, concerns, or complaints about the study you may contact Dr. Anies Al-Hroub at 01-350000 ext. 3064 or by email: aa111@aub.edu.lb or Ms. Nessrine Machaka at 70-078578 or by email: nmm40@mail.aub.edu.
For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institutional Review Board at 01- 350000 or 01-374374, Ext: 5445 or by email: irb@mail.aub.edu.

R. Participant Rights

Participation in this study is voluntary. There are no monetary rewards for participation of the observer in the study. Your decision not to participate in no way influences your relationship with AUB. A copy of this consent form will be given to you. Your decision will not result in any penalty or loss of benefits.
You also understand that you are solely an observer of the activities conducted during the intervention, you are not an instructor, an employee, or agent of the American University of Beirut.

If you have fully read this entire release, understand it, and agree to volunteer as an observer in the study, please sign below:

Consent of external observer Mr. / Mrs. (full name): _____
Phone: _____
Date: _____
Co-Investigator's Signature: _____

Principal Investigator (PI): Dr. Anies Al-Hroub
Address: American University of Beirut (AUB)
Associate Professor of Educational Psychology & Special Education
Phone: (01) 350 000 Ext: 3060/3064
Email: aa111@aub.edu.lb

Co-Investigator (CO-PI): Nessrine Machaka
Address: Graduate Student
Phone: (70) 078578
Email: nmm40@mail.aub.edu