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The Relationship Between Emotional Intelligence and Academic Achievement in a Lebanese Sample

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DEDICATION

To my father Fawzi Hazimeh for giving me the chance he never received

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Abstract

The main purpose of this study was to examine the relation between emotional intelligence and academic achievement in seventh and tenth grade classrooms (N= 149: 81 males and 68 females). It was a correlational study that utilized the Six Seconds Emotional Intelligence Assessment for Youth and the students' academic records (2009- 2010). The results indicated no correlation between general academic averages and emotional intelligence scores (EQ). There was a positive correlation between emotional intelligence (EI) subscales and academic subjects but no correlation between age and emotional intelligence. The results also indicated that there is no significant difference between the performance of females and males in emotional intelligence. This work indicates that nonintellectual skills could be contributing factors to students' academic and maybe life success.

The Relationship Between Emotional Intelligence and Academic Achievement in a Lebanese Sample

It is educators' aim to offer students the skills they need to function in the world. However this aim is influenced by the educator's cultural belief of what constitutes the learner's competence or intelligence. Intelligence has traditionally been viewed as the ability to reason, and it has been compared to a billiards game where one major force causes the movement of simple objects (Bourdieu, P., 1990, as cited by Julien, J.ST, 2000). School curriculums were designed based on these concepts.

The view of intelligence as a single trait goes back to Charles Spearman's statistical analysis of scores of various intelligence tests. Through his factorial analysis, he discovered that the highest correlations were found in tests that required abstract thinking. Spearman named that leading factor which all those correlations fell under, "general intelligence" or "G". In addition to that, Spearman also believed that general intelligence was inherited as displayed in the buildup of the brain itself (Francher, R.E., 1987).

More recent research tended to view intelligence as a network model where any change in the net causes a difference in the interrelated system. Because of that change in the view of intelligence, educators had to change their view of education, and schools had to modify curricula accordingly. There was a shift from the linear causal model to a more networked view in which different forces act in different contexts to make changes throughout the system.

Background of the Study

Research background. Because Spearman used statistical methods, many researchers adapted his theory. It was not until 1981 when Gould, S.J. (1996) put the accuracy of Spearman's conclusions to the test. According to Gould (1981), Spearman came up with the definition of general intelligence based on a mathematical correlation. As a result, he committed the error of circular reasoning where he explained the concept of general intelligence based on the positive correlations which he was trying to explain in the first place. In fact, G just measured a sample's performance on various cognitive tests. Positive correlations did not represent the individual's actual behavior in the test setting or in any other context (Crinella, F. M, & Yu, J., 2000).

Plomin (1990) also revised Spearman's view of the biological determinism of IQ and concluded that human intelligence is not a fixed given and that it could be influenced by nurture alongside nature.

Intellectual background. In spite of the fact that, Spearman observed that there are different skills that need their own intelligences which he called "S" meaning specific factors, he did not give them the importance he gave to G. Then, researchers started to define intelligence as a group of traits rather than just one factor and to even come up with intelligences other than Spearman's. For example, in 1920, Thorndike (cited by Cherniss C & Goleman, D., 2001) first came up with the concept of social intelligence which he defined as the capacity to comprehend and deal with humans which leads to

wisdom in social relations. In 1983, Gardner came up with the concept of multiple intelligences which included at least six intelligences two of which were Inter and Intrapersonal intelligences.

Later in 1984, Sternberg came up with three kinds of intelligences: analytical, creative, and practical. What is noteworthy about those researchers is that their definitions of intelligence moved apart from Spearman's traditional view of intelligences as being linked to academic success. Intelligence was no longer just "school-related", it was "world- related". Thus, it could no longer be assessed by traditional intelligence tests based on the G factor.

Professional background. Research influenced psychologists and motivated them to study other modes of intelligence. They began to view the concept of intelligence as a human capacity not just to do the basic reading, writing, and arithmetic (3 R's) required by school but also to be able to handle one's and others' emotions. As a subset of social intelligence and a combination of Gardner's inter and intra personal intelligence, Salovey and Mayer (1990) were among the first to talk about emotional intelligence .To them intelligence construed a concept far removed from Spearman's.

In 1997, they further explained emotional intelligence by describing how it assists thought and advances intellectual development. Emotional intelligence was considered as different from the general intelligence studied by researchers and assessed by IQ tests. It was a force in humans that works alongside the kind of intelligence required to do well in the context of the classroom and actually affects the way students learn and grow intellectually.

Almost a decade later, researchers were still making studies to observe the relation between academic achievement and emotional intelligence. They found that emotional intelligence actually predicted students' academic achievement and especially in certain subjects such as Science, and Geography. They came to the conclusion that strengthening students' emotional intelligence might boost students' scholastic achievement (Downey, L. A., Mountstephen, J., Lloyd, J., Hansen, K.,& Stough, C., 2008).These findings further validate Salovey and Mayer's (2000) suggestion that emotional intelligence contributes to the development and strength of cognitive abilities.

Societal background. In the last 20 years, researchers have been turning away from intelligence that is required to do well in reading, writing, and arithmetic into the intelligence required to do well at a more personal and social level. They have recognized that doing well in a narrow academic setting does not directly reflect upon success in the real world. This has huge implications on schools' and universities' admission criteria because most standardized tests have been based on students' abilities in the academic domain. However as Chen, P.W. asks in her article "Do You Have the Right Stuff to be a Doctor?"(2010) Does the MCAT (which is a standardized test that measures mastery of the premedical curriculum and hence decides which candidates get accepted into medical schools in the US) guarantee that applicants would be the best doctors? If being a doctor is just about " knowing the medical curriculum", then doctors would excel best in a classroom setting or in a research context rather than with patients. Being a doctor requires the ability to deal with people not data. Recent tests have shown that doctors who are unable to handle stress and are likely to become emotionally upset are more

likely to have poor academic performance. Thus, there is more to success than academic abilities; emotional abilities seem to be crucial as well.

Statement of the Problem

The question of whether cognitive abilities per se are sufficient to make decisions related to school, university, or even career choices has been raised by the previously mentioned research. However, the study of emotional intelligence, its influence on cognitions, and its necessity as a predictive tool in vital decisions is a recent study both in the western and eastern world.

For the aforementioned reasons, the researcher would like to find out whether academic achievement is related to nonacademic factors such as emotional intelligence or not. Because emotional intelligence has not been studied extensively and especially in Lebanon, the researcher would like to see if there is a possible relation between emotional intelligence and not just general academic achievement but also certain Lebanese curriculum subjects.

According to Piaget, cognitive skills develop from concrete to abstract as a person grows. Abstraction and metacognition are usually not very developed in children and so would be the emotional factors influencing these thought processes. It is with age

and exposure to different social contexts that emotional maturity develops. Because previous research has signified that emotional intelligence develops with age and that there are certain subscales in which gender has an effect on the results, the researcher would also like to try this line of research within a Lebanese context. More specifically the following hypotheses were examined:

Hypothesis 1: There is a positive correlation between emotional intelligence and general academic achievement.

Hypothesis 2: There is a positive correlation between emotional intelligence subscales and academic achievement in specific subjects.

Hypothesis 3: There is a positive correlation between age and emotional intelligence.

Hypothesis 4: Females tend to have higher emotional intelligence than males.

Significance of the Study

Significance to the field. There is still relatively little research done on the significance of emotional intelligence as a concept. Western researchers are still in the early stages of collecting data from their population samples. That is why research in a Middle Eastern context would help extend the database and put the current testing tools to the test to see how culturally fair they are. It would also be one of the earliest studies to be made in a Middle Eastern region which would also help future researchers who might benefit from the results as well as the delimitations.

Significance to the cultural context. Educational curricula respond to the needs of the community. Since the Lebanese community generally holds the belief that in order to obtain the highest paying and prestigious jobs, one must excel in sciences and math, its curricula is based on that concept. In general, schools focus on building scientific and mathematical skills primarily and writing and reading skills secondarily. Their ultimate goals are to enable students to pass the Lebanese program Brevet and Baccalaureate examinations and to be admitted to universities in the country which will initially test students on knowledge of those skills. A study that might indicate the presence and necessity of refining other mental abilities might give the predominant culture an awakening jolt.

If research revealed that when students' emotional intelligence is developed, they become more successful academically, this might affect both the way people and organizations are set up.

Significance to the geographical context. Since the study was conducted in the Middle East and especially at a Lebanese school, it might be an eye opener to the school itself to realize that the academic curricula might need to be supplemented with an emotional program. Because the school selected is a private school, it might have the flexibility in the program to add a formal emotional program to its curriculum especially that no previous research has been done in a school in Lebanon about the correlation between emotional intelligence and academic achievement. This study might be the starting point for future research into implementing an emotional education program in schools in Lebanon and the region.

Overview of Methodology

Research type. The research was correlational, so data was collected from a survey and the academic records of the students participating in the study.

Research Methods

Emotional intelligence test. The researcher obtained the Six Seconds Emotional Intelligence Assessment for Youth (SEI-YV Survey, 2007). In return for using the self-report, the test makers expected the researcher to share the results of the study to include in their database.

Academic achievement records. Students' academic achievement was obtained from their 2nd term subject grades and general averages in the current academic year 2009-2010. Then, the researcher obtained term 1 and part of term 3's grades and tried to use them in the study.

Description of sample. One hundred, forty-nine students (81 males and 68 females) participated in the test. They were from grades 7 and 10. It was a sample of convenience because these two grade levels are not time constricted for preparation for official exams, so a session could be taken from their schedules to administer the test.

Definition of Key Terms

- *Emotional intelligence*: "involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to

regulate emotions to promote emotional and intellectual growth." (Mayer, J.D. & Salovey, P. ,1997, p.10)

- *Interpersonal Intelligence*: is one of the intelligences described by Howard Gardner (1983) in his multiple intelligences theory. It is the ability to understand people.
- *Intrapersonal Intelligence*: is one of the intelligences described by Howard Gardner (1983) in his multiple intelligences theory. It is the ability to understand oneself.
- *Academic Achievement*: is a student's accomplishment in an academic setting such as a school or university.
- *Nonintellectual, Non-intellective, or Nonacademic factors*: "drive and incentive" (Weschler, D., 1944, p.3), the abilities to identify ,express and manage personal feelings and to use them to influence thought (Salovey, P. & Sluyter, D.J.,1997), and the abilities to identify others' feelings and to interact with them according to that knowledge.

Delimitations

The methods used. The test is relatively long and written in English (not Arabic, the native language). It is Canadian, so the culture it addresses might be more used to communicating about feelings and resorting to healthy communication to resolve problems especially when it comes to males. These factors might have negatively affected the participants' performance.

External Validity

The results of the study might not be easily generalized to the population because of the small size of the sample and uniqueness of its nature and that of the setting.

Size and nature of sample. The number of participants was relatively small, so a larger sample might yield different results. In addition to that, the students participating in the study were just from certain classes and consequently age groups, so their results might only apply to their specific age group. Other variables might affect performance if a wider age group was taken from different types of schools.

Uniqueness of the setting. Students were sampled from Beirut Baptist School which is one specific private school in Beirut. The results might only be significant to that private school with its specific social and economic class of students.

Ethical Considerations

The researcher got permission from the school to administer the emotional intelligence test and to have access to the grades. She received the informed consent of the students and directly changed their names to codes which she alone knew of.

CHAPTER 2

Literature Review

Thousands of years ago, Plato said:"All learning has an emotional base." (cited by Esmond-Kiyer, C., Tucher, L.M., Yost, C.A. ,2006).However, the concept of emotional abilities playing any role in academic, professional, or life success has been disregarded ever since. On the other hand, Schlinger (2003) emphasizes the importance of intelligence and intelligence testing because they have been the proponents of serious decisions about soldiers, foreigners, children with disabilities, mainstream children, and people from differing ethnicities in the United States since 1904 when Spearman defined general intelligence. Because the concept of emotional intelligence is a relatively recent one, research related to it has at first to validate its existence as an intelligence slightly correlated with IQ yet distant enough to be able to stand as an independent intelligence. The purpose of this chapter is to present a theoretical review of articles that describe general intelligence, how the concept of emotional intelligence emerged and how it became validated. The chapter will also provide an overview of biological studies that validate its existence within the human build up. It also aims at examining the empirical studies which have investigated the relation between emotional intelligence and academic achievement on one hand and age and gender on the other.

Theoretical Review

The theoretical review was developed based on the dictionary definition of intelligence, the early views of general intelligence, the anatomic existence of emotional intelligence and the psychological view of emotional intelligence.

The dictionary definition of intelligence. Intelligence as defined by Merriam–Webster's online dictionary pertains to a person's abilities to acquire knowledge or to solve problems.

The early views of general intelligence. Schlinger (2003) emphasizes the importance of intelligence and intelligence testing because they have been the proponent of serious decisions about soldiers, foreigners, children with disabilities, mainstream children, and people from differing ethnicities in the United States. He traces the study of intelligence back to Spearman who used factor analysis and discovered that specific cognitive skills positively correlate to form a general factor (g) which later came to be recognized as general intelligence. Standardized tests were made to judge whether millions had the general intelligence required to be recruited in different army positions and later jobs and even classrooms or institutions. General intelligence was defined in 1904 as a general ability that allows one to solve problems, and if one is able to solve a certain problem then he or she is judged as able to solve others.

According to the research, a general factor denoting the abstract reasoning required for academic success defined intelligence. Spearman was later criticized for logical reification when he used a mathematical process and generalized it to human intelligence and of even circular logic where a concept can only be explained by itself. In that context, G could only be explained by the positive correlations though they were what was being explained in the first place. Besides, positive correlations are not an indicator of causality. Several human skills might be related to each other; however this does not denote that they cause each other or join to cause a more general factor. Spearman's concept of a unique general intelligence that allows abstract reasoning was taken for granted till other researchers started investigating other human skills that allowed people to solve problems.

The Psychological View

The American Psychological Association states that one can be intelligent in different ways, so researchers' view of intelligence varies accordingly (cited by Schlinger, 2003).The views of intelligence that move away from the theory that intelligence is a unique factor could be traced back to Thorndike, Howard Gardner, John D. Mayer and Peter Salovey, Bar-On, and Daniel Goleman.

Thorndike's view. Just like Spearman's view of intelligence was introduced by a dictionary definition of the concept, a less commonly used meaning of intelligence will be used to introduce Thorndike's view. Intelligence can also be explained as the one referring to information and knowledge that could be obtained about others and used to better understand their motives. This meaning is indicated in special governmental structures such as the Central Intelligence Agency (CIA) and it is related to E.L. Thorndike (1920) who could be considered the pioneer researcher in intelligence other than the general one. He coined the term "social intelligence" to refer to a person's ability to "understand and manage" others in order to succeed in human relations. He actually combined social intelligence with two other aspects of intelligence, abstract and concrete. He considered social intelligence factors independent of academic intelligence factors (Landy, 2005, p. 1 quoted by Bardach, R., 2007). When E.L. Thorndike tried to test for the existence of social intelligence, he and his colleagues deduced that a "lab" setting is not appropriate to test such a construct and that a more socially contextualized test should be devised. Thus, the study was left till decades later when Howard Gardner (1983) came up with his multiple intelligences model.

Howard Gardner's view. Howard Gardner initially came up with the multiple intelligences theory. Amongst his intelligences were the *intrapersonal* (self smart) and *interpersonal* (people smart). Though his model was a breakthrough in the traditional concept of intelligence, he could not psychometrically validate the existence of his multiple intelligences as independent intelligences, and so his theory though significant in the field became a stepping stone for other theorists (Frasco, D. Jr, 2001). Instead of intelligence being just a person's inherited almost fixed genetic ability to function well in academic areas of the 3 R's, other abilities were considered.

According to Gardner (1983), all humans had various degrees of all intelligences, so his theory brought forth the idea that people could actually do something to hone the skills they have. Instead of parents and educators settling for the academic achievement of children as the permanent indicator of their innate skills, they could now guide the children to strengthen other competencies. As a result, nature and nurture became the new given and the definition of intelligence started to get new facets such as those pertinent to emotional not just intellectual factors.

John D. Mayer and Peter Salovey's view. Mayer and Salovey proposed the concept of emotional intelligence as some kind of merge between Thorndike's social intelligence and Gardner's interpersonal and intrapersonal intelligences.

In their book, *Emotional Development and Emotional Intelligence,* Mayer and Salovey (1997) divided the construct into a hierarchy of four sections that describes the abilities embedded in emotional intelligence and the process of the development of emotional intelligence with age.

The base of the hierarchy encompasses the most basic of emotional abilities which is the ability to perceive emotions in oneself and in others. For example, a child learns early on to identify emotions on the faces of caregivers and responds accordingly. Then as the child grows older, the ability to perceive personal sensations increases.

The second level of the hierarchy encompasses humans' emotions as they influence thought processes. For example, the child worries when thinking of a test on the second day.

The third level up is the capability to understand emotions and the reason behind feeling them. For example, adults guide children to understand that sadness might be the result of failure. Also as children grow, they begin to realize that a person can feel a mixture of emotions such as love and anger towards the same person.

The top of the emotional hierarchy is the ability to manage emotions. Adults might guide children to postpone verbalizing their feelings to a later time when they are calmer. This is also the "meta-evaluation" and "meta-regulation" stage where the child is able to think about feelings and evaluate them and then act upon them or regulate them.

This hierarchy would later be subsumed in Mayer and Salovey's definition of emotional intelligence which included the capabilities of "perceiving, using, understanding, and managing emotions" (Mayer & Salovey, 1997). This four branch model defines emotional intelligence as the ability to understand and deal with emotions both personally and socially.

Bar-On's view. Another view of emotional intelligence is the one held by Bar-on. Just like Mayer and Salovey's, his model contains Gardner's inter and intra personal

intelligences. He views emotional intelligence as a mixture of social and emotional abilities. (Cited by Hamarta, E., Deniz, M. E., Neslihan,S. , 2009). His model also includes the subscales of *Adaptability (flexibility and problem-solving), Stress Management (dealing with daily pressures of life),* and *General Mood (optimism).*

Daniel Goleman's view. In 1995 Daniel Goleman wrote a book that publicized the concept of emotional intelligence. He was among the first to consider that emotional intelligence can have a very serious impact on school, work, and life in general. According to Maulding, W. S. (2002), Goleman had stated that IQ only contributed to "S" factors influencing success. In his model, Goleman included five subsections, "*Self-awareness, Self-management, Social awareness, Empathy, and Social Skills*". Goleman's model includes facets which Bar-On's neglected. Bar-On neglected important facets such as emotional perception for self and others (Perez, J.C., Petrides, K. V., Furnham, A., 2005). Another positive aspect of Goleman's view is that it elaborated on the influence of emotional intelligence on leadership qualities such as conflict resolution, improving others, and cooperative work.

Though researchers differ in their definition of emotional intelligence, common features can be deduced. All their theories can be traced back to the belief that there are factors other than general intelligence that lead to life success. The researchers agree that human intelligence is not just conveyed in the ability to reason, but also with the ability to handle feelings which in turn affects the way we reason. Initially all Emotional Intelligence (EI) theories can be traced back to Thorndike's concept of social intelligence and to Gardner's inter and intrapersonal intelligences. All theorists concluded that

handling emotions in oneself and others leads to successful relations and life satisfaction in various life domains.

The Neurological View

Some of these researchers were also interested in biological studies that further supplied their theories with anatomic evidence. An overview of these studies will be presented followed by an empirical view of emotional intelligence and its relation to other concepts.

Emotions and the brain structure. Rational abilities that are supposed to allow humans to succeed academically come from the neurocortex (rational brain). Where do emotions come from? Brain anatomy studies try to answer that question. Howard Gardner, Greenspan, and Goleman have used such studies to provide further evidence for their theories.

Howard Gardner's studies on people with autism and brain damage. By studying cases in which brain damage or deficiencies negatively affected social and emotional skills, Gardner (2006) could prove the existence of such functions in the brain. Gardner studied cases in which damage to the "prefrontal lobes of the neocortex" had caused great impairment to interpersonal and intrapersonal capacities leaving other brain functions untouched.

Gardner also observed people with autism and concluded that there are actual brain dysfunctions that harm interpersonal intelligence. Whereas other brain functions responsible for other skills might be neurologically intact or even functioning at a superior level, certain brain parts might be impeding emotional perception and expression

(cited by Kihlstrom, J.F. & Cantor, N., 2000). Thus, the person might lack the emotional abilities Mayer and Salovey (1990 &1997) described such as the ability to use knowledge of feelings to regulate cognitions and behavior. As a result, the person fails to understand and successfully function in his social environment and cannot even use the skills that he might have in a socially functional manner.

Greenspan. Kihlstrom et al. (1997) quoted Greeenspan (1992, pp. 113-129) who describes another context in which the presence of social intelligence is validated as different from cognitive intelligence factors in the study of mental retardation. Mental retardation is a brain anomaly that renders people with an IQ of less than 70. However, the deficiency in rational thought cannot be inferred from the absence of social intelligence nor vice versa. In spite of mental retardation, a person could still display evidence of adaptive functioning in the community. That is why mental retardation is diagnosed according to two criteria: academic and social intelligence.

Goleman. In Goleman's brain studies, both Gardner's brain damage biological theory and Mayer et al.'s psychological theories are somehow validated.

Goleman (1995) recounts an episode in which a man with serious seizures had to have his amygdale removed. Though he could still talk to others, he lost all interest in social communication as well as the ability to understand his feelings or those of others. Hence, Gardner's view that there are emotional brain centers responsible for Inter and Intrapersonal abilities is further proved.

Mayer and Salovey (1997) coined the term, "Emotional Intelligence" (EI), but it is not enough to verify the existence of a "feeling" and "thinking" brain. Research in how

"emotions" and "intelligence" can be linked is essential. Goleman (1995) describes how a brain structure at the spinal cord is responsible for biological and emotional reactions. The neurocortex or rational brain actually developed from that affective (emotional) domain. Even neurophysiologically (in the study of nerves), there exists a relation between thoughts and feelings. What makes the neurocortex a combination of two spheres is that it allows humans not just to think and feel but to be able to think about thoughts and feelings. Hence Goleman has supplied evidence for the existence of Mayer and Salovey's highest emotional abilities of meta-evaluation (thinking about feelings) and meta-regulation (managing feelings).

Empirical Review

Empirical research in EI offers theories a practical level which validates their existence not just psychologically but psychometrically as well. Since the purpose of this chapter is to gather relevant literature on the relation between EI and general academic success on one hand and emotional intelligence and age and gender on the other, articles that psychometrically validate these concepts will be reviewed in the following section.

Empirical testing of emotional intelligence. As cited by Polat, S. & Uolosoy-Öztan, Y. (2009), Mayer and Salovey were the pioneers in empirical studies on emotional intelligence in 1990 when they first introduced their model of emotional intelligence. Salovey, P. & Grewal, D. (2006) describe in their article how Mayer et al. came up with the first psychometrically valid Emotional Intelligence (EI) test. Their task was not just to

prove that their construct was independent from IQ but also from personality. In 2002, Mayer et al. conducted a study on 183 participants who sat for the Multifactor Emotional Intelligence Scale (MEIS) and were tested upon career interests, character, social actions, and emotional character. The results showed that emotional intelligence was independent of personality and the other subscales in the survey (Bardach, R.H., 2007).

Emotional intelligence has been empirically researched in an online classroom as well as a traditional one. Positive correlations have been found between emotional intelligence and academic achievement on one hand and emotional intelligence and age on the other with both adults and adolescents.

Academic procrastination, locus of control, and emotional intelligence. The researchers, Engin,D.M., Zeliha. T., and Didem, A. (2009) wanted to examine the relation between academic procrastination, locus of control, and emotional intelligence. What is meant by locus of control is a person's tendency to either blame outside forces for events (external locus of control) or to bear the responsibility for them (internal locus of control). Academic procrastination is the tendency to postpone studying or doing homework assignments to a later time. This might lead to an increase in the load of work and consequently to more stress.

The sample included 273 female and 162 male university participants (ages 17-21).The participants had to sit for the Academic-Procrastination Scale, The Locus of Control Scale, and the Emotional Intelligence Scale.

The research found that there was a correlation between students' procrastination and some subscales of the emotional intelligence scale mainly, *Adaptability and Coping*

with Stress. Findings also revealed that the *Adaptability and General Moods* scales predicted locus of control while EI was negatively correlated with *locus of control* and *scholastic procrastination.*

Conclusions and implications. The results of the research further support the theory that academic achievement can be influenced by factors other than reasoning. Stress is a negative emotion, and being able to cope with it from the start is an indicator of a high level of EI. Stress management is more difficult than avoidance because it means that the person is able to accurately perceive the reasons behind negative emotions and use this knowledge to regulate thought which in this instance is the decision to complete tasks instead of procrastinating, Students who do not know how to cope with the stress of having academic responsibilities might avoid having to face and mange that stress by resorting to an escape mechanism, procrastination for a quick and instantaneous sense of relief. However, if a student constantly resorts to procrastination, he or she will get stuck in a vicious cycle in which seeking that sense of relief will lead to more stress and vice versa. The more a person takes responsibility for regulating negative emotions such as stress, the more likely it is that he or she has internal locus of control and high emotional intelligence.

Stress management might be a necessary life skill to instill in young students' school education before reaching the university level and supposedly becoming completely self- reliant. An emotional intelligence school program is needed to train students early on to accurately perceive stress and learn techniques to handle it without resorting to escape mechanisms or delegating the management of personal events to outside forces. Learning how to manage stress and control negative feelings resulting

from it is one way to take personal responsibility for personal emotions and thus life events, so this internalizes locus of control.

Limitations. The sample observed was not representative of populations other than the one in the research. Results might differ with students of lower age groups and different cultures. Though it sheds light on a problem, it does not offer suggestions for early preventive measures in school years.

Online Setting

Berenson (2005) conducted a study that aimed at investigating the relation between students' GPA (general point average) and their emotional intelligence. It explained how students' emotional intelligence supplied them with the motivation and persistence they needed to compensate for the lack of human interaction that a traditional classroom supplies. In a traditional classroom there is a face to face relation between teachers and students which is a form of nonverbal communication. Students might be guided by teacher's emotional expressions to distinguish between relevant and irrelevant material. In addition to that, students might also read positive or negative feedback to their contributions to class via teachers' emotional facial expressions. Teachers might read students' cues of fatigue or confusion and adjust teaching accordingly. On the other hand, online students need to manage their own negative feelings to increase their motivation for learning. The only form of communication is the linguistic one which lacks the emotional though nonverbal wealth of emotional expression in a face to face human interaction.

The research findings were aligned with what Goleman (1998) and Bar-On (2006) had reported. There was a positive correlation between emotional intelligence and age.

This research though conducted on an online setting is an eye opener to the fact that emotional intelligence is an important part of the learning process that might be taken for granted in the traditional classroom. The next section will review a research about the influence of generally school aged students' emotions intelligence on their learning in a traditional classroom setting.

Traditional Classroom

Gifted learners. Olszewski-Kublius, P. and Lee, S.Y. (2006) conducted a study on 234 American gifted learners (grades 10-12, 50.9% males and 49.1% females) who were participating in a leadership program. The purpose of the study was to examine whether there was a positive correlation between gifted learners' emotional intelligence and academic achievement.

The students' academic scores were obtained from their SAT scores and emotional scores from Bar-On Emotional Quotient Inventory , Youth-Version, Short Form (Bar On EQ-i: YV (S). The results were compared to a normative sample (*N= 1.461, ages 16-18*).

The major results were that the gifted students were not emotionally more advanced than the normative sample. They even scored less on *Stress Management* and *Impulse Control* than did the normative sample. Gifted males were especially similar to the students of comparative chronological age, but they were higher in the subscales of *Adaptability, Problem Solving,* and *Flexibility*. Gifted Females' emotional intelligence

scores were actually less than those of the normative sample; however, they outscored the gifted males in the interpersonal subscale.

Conclusions and implications. The study supported research related to how females are more skilled in *Interpersonal Skills* than males while males are more skilled in *Problem Solving* skills than females. (Miller, N.B., Silverman, L.K., & Falk, R.F., 1994, pp. 20-38), as cited by Olszewski-Kublius, P. et al., 2006). According to Goleman, D., IQ is more influential than EQ as a threshold to certain domains. That is probably why in order to be accepted in gifted programs it is the high IQ that is more necessary which probably explains why the gifted group were not more emotionally advanced than the normative one. For females it could be that their cognitive development had to be at the cost of "softer skills" which "normal" girls might be culturally encouraged to develop to compensate for lack of extreme levels of intelligence. On the other hand, the fact that gifted participants were inferior to the normative group in impulse control could be because of the actual criteria for giftedness. A gifted person tends to have creativity, a high activity rate reflected both physically and mentally, and a resistance to authority. These traits might be at the expense of the development of self- control. Consequently being so energetic in brain and body, might lead to an increase in stress which might be difficult to manage because of an over- activated brain. It would be interesting for future researchers to further study whether the gifted youth in society though considered superior by IQ might not be so in EQ. Consequently, gifted youth and especially females might benefit just as much and even more from emotional intelligence programs than youngsters of comparative chronological age.

Limitations. The study was restricted by natural choice of a gifted sample of participants of a specific age in a leadership program. These reasons might hinder the generalizability of the findings to other populations.

Downey et al. The purpose of the study by Downey et al. (2009) was to investigate the correlation between academic achievement and emotional intelligence in a sample of 209 Australian adolescents (ages 12 to 17, M = 86 and F = 86).

The researchers used the Swinburne University Emotional Intelligence Test (SUET) which was administered in the middle of the Australian school year (June). The academic achievement scores were obtained at the end of the year and accordingly, students were grouped into three groups based on their GPA (the better group (being at the 80th percentile and above), the middle group, and the lower group (being at the 20th percentile).Then a correlational study was done with the SUET score. Other independent variables were age and gender while the dependent variables were the subscales *Emotional Recognition and Expression (ERE), Understanding Emotions (UE),* and *Total EI.*

Girls scored higher than boys in the aforementioned subscales .The higher academic groups were also found to have significantly higher results than the middle and lower groups in the *Understanding Emotions subscale (UE).* The middle group also scored higher than the lower group in that subscale. With respect to the scale of *Emotional Management* and *Control*, the middle group scored higher than the higher and lower group. The higher group scored significantly higher than the lower group in that subscale. For Total EI, the higher group scored higher than both the middle and lower

groups. Certain subjects were found to be correlated with some subscales. For example, UE subscale was found to be correlated with Geography and Art averages. While the *Emotional Management* and *Control* subscale had a positive correlation with Math, Science, and general average. In a regression study, it was noted that the subscale of *Emotional Management* and *Control* significantly predicted science while the *UE* subscale was a significant predictor of scores in Art and Geography.

Conclusions and implications. The research came up with several conclusions, two of which are general academic performance at school was positively correlated with emotional intelligence scores. Certain subjects are correlated with emotional intelligence subscales , and in certain subscales, girls performed better than boys.

These findings imply that if schools trained their students to have better emotional skills not only would students grow to be more successful at dealing with personal and social situations in an emotionally healthy way, but they would also improve their academic performance. Thus, emotional intelligence educational programs would help schools truly accomplish their missions of bringing forth into the community individuals who are mentally, personally, and socially fit. Emotional education in schools might add to the skills that girls already seem to have developed and fill the gaps for boys who might be emotionally deficient in certain areas.

Limitations. Though the research leant support to previous theories about the correlation between EI and school performance, it had some limitations. Its results might not be generalized to populations other than the Australian and other than the school itself which the study was conducted in. Also the uniqueness of the school's curriculum makes

the research applicable to certain subjects and not to others. Using another emotional intelligence measurement tool might also influence the reliability of results and the correlations deduced.

Gardner, R. C .The researcher Gardner, R. C (1960, reprinted in 2005) conducted 30 tests of performance in French, linguistic capabilities, attitude towards French communities and to the general French subject, and the upbringing of the student. The tests were conducted on a sample of 83 English speaking high school students in Canada. The purpose of the study was to see if there was a relation between acquiring French and the factors of motivation and aptitude. The researcher provided evidence to support the hypothesis that acquiring French as a foreign language requires personal motivation. This is especially true because learning a foreign language is not as culturally unbiased as learning the mother tongue. The older the person gets, the more influenced he or she becomes by the dominant culture's view of the language speakers. Learning a foreign language becomes associated with wanting to be part of a certain community of French speakers which might be stigmatized in the culture. Learning a foreign language means exerting more effort in certain aspects than learning the mother tongue because not only is the person not as intimately surrounded by speakers of the language but also he or she might be living in a context where the language is associated with presumed negative traits of its speakers. Thus learning the foreign language requires the natural effort to acquire new words, phrases, and sentences in the spoken and written medium and the effort not to be prejudiced against the language. The research specifically indicated that the student exerts effort especially to acquire the vocabulary and grammar of the language. Oral skills such as reading and speaking fluency, and pronunciation were also

correlated with the student's wanting to learn the language and the personal effort exerted. It was noticed that especially acquiring an accurate accent in the target language mostly relied upon the motivation to learn the language and was not correlated at all with aptitude. Learning how to speak with the proper accent signifies that the learner might desire to use the language in a context outside the school domain. Another aspect that did not correlate with intellectual ability was automaticity or being as fluent in the mother tongue as in the foreign language. If students do not truly want to acquire the foreign language, they will not because in reality they do not really need it for communication in their social contexts. So they could easily settle for a shallow or even rudimentary knowledge of the language that does not equal their knowledge and aptitude of the native language. The last correlation which solely depended on motivation not intellectual skills was "meaning separation". If the student did not have the intrinsic motive to learn the language and overcome any negative attitudes about the members of that language group, he would keep meanings of personal value of his mother tongue separate from those in the foreign language.

Conclusions and Implications. Though intellectual aptitude plays a major role in foreign language acquisition, automatism, oral fluency, and meaning separation positively correlate with motivation. In these three factors, learning the language is based on wanting to do so and the personal effort required to adopt a new language and hence a new culture. An interesting finding was that boys tended to have more positive correlations between their motivation and acquiring of French skills which are not related to aptitude.

Limitations. The research was conducted with Canadian youth who might be more exposed to the French language than other foreign language learners. They might receive more extrinsic motivation to acquire the language than other students. In addition to that, though the research has been reprinted in 2005, only certain footnotes were added to it. It is almost 50 years old, so its results might be inapplicable not just to countries other than bilingual Canada but to the current times as well.

Pishghadam, R. In a more recent article, Pishghadam, R. (2009), examined the correlation between emotional intelligence and foreign language learning. The sample consisted of 508 second year university Iranian students majoring in teaching, translating, or English language literature. These students had to learn English as a foreign language in the university. They were asked to sit for the Bar-on Emotional Intelligence Test at the beginning of the academic year, 2006. The five main subscales of the test are *Interpersonal, Intrapersonal, Adaptability, Stress Management*, and *General Mood*. Each subscale is in turn divided into several subsections. The sample was divided into the successful group whose GPA was 84% and more and the unsuccessful group whose GPA was 60% and less. The students were divided into groups according to GPA grades in the different English language skills.

The results of the study revealed that the successful group had higher scores on the subscales *Intrapersonal, Stress Management, General Mood*, and *total EQ* than the unsuccessful group. In correlation to reading, the successful group scored higher in *Stress Management, General Mood*, and *Adaptability*. Whereas in listening, the successful group had a higher correlation with *Intrapersonal* and *Stress Management* subscales and total *EQ*. With respect to speaking, the successful group outscored the other group in

Inter and Intrapersonal and General Mood subscales, and *General EQ*. Finally, the former outdid the latter in writing with regards to *Stress Management* and *Adaptability*.

Conclusions and implications. The study indicates how emotional intelligence skills might play vital roles in acquisition of a foreign language. This could be a sign that in order to improve students' results in language learning, educators might have to modify lessons with an eye to students 'emotional and not just academic needs. These modifications might need to be carried over from foreign language classrooms to lower school classes that teach the mother tongue. For young children, the same emotional skills required to learn a foreign language might be required to learn how to read and write and even speak their own language especially if the colloquial greatly differs from the formal form.

Limitations. The study was conducted in a university setting with second year students, so this might negatively affect the generalizability of the results to school age students who might benefit more from emotional intelligence skills. Another limitation is that English was taught as a foreign language and future researchers might want to explore emotional intelligence correlations and even effects on first and second language acquisition.

The aim of educators is to prepare youth for jobs in the world, so as a wrap up of the background literature, studies relevant to how build up of emotional skills that might start in the classroom might be transported to the real world that were cited by Daniel Goleman will be mentioned.

Daniel Goleman (2001) stated that though IQ might be a requirement for a person to enter a certain field of work, once the person is on the job, it is not IQ alone that can ensure success and promotion, it is emotional intelligence. He had based that assumption on several studies conducted by large organizations. For example a study from 40 companies showed that their top performers had 27% more frequency in cognitive competencies than average performers. On the other hand, they had 53% more frequency in emotional skills than did regular performers. Goleman reports another study which revealed that 14 out of 16 of the capabilities that distinguished outstanding performers from average ones were emotional ones. Spencer and Spencer also conducted a study of 286 companies around the globe in 1993 and Goleman reported that their research revealed that 18 out of 21 strengths required in their criteria to set apart the distinguished from the mediocre performers were based on emotional capabilities.

Daniel Goleman continued to explain how one of the important characteristics of skilled managers is the ability to adapt to changing economics in order to effectively lead companies to safety. This required EQ and not IQ because in according to a study by Fernandez-Araoz, C. (2001), 23 executive managers who failed in their positions during stressful financial times had high technical skills and IQ but weakness in emotional stamina. Goleman gave another example, of how emotional competencies are essential in succeeding on the job, which could also be transferred to other arduous situations. He said that people who feel that their jobs are mundane and monotonous are more likely to fail than those who are able to create a mental state of engagement. He called that state "flow". He linked it to neurological studies that indicate that when the brain is doing a complex task but is relaxed and not bored, it operates at a minimal level of irrelevantly

spent energy. However, if the individual is in a stressed or listless state, the brain cells get overworked and inefficient which might lead people to be "out of flow" and fail. Goleman emphasized the fact that current career requirements are for leaders who have the capacities of maintaining dedication, drive, and optimism to guide companies through rapidly changing times.

As further support of Goleman's research, Esmond-Kiger, C, Tucker, M.L, Yost, C.A. (2006) explained how important emotional intelligence is in economic fields such as accounting. With emotional intelligence comes empathy to others which might prevent accountants from embezzling money or forging crucial documents. Another skill that might come with emotional intelligence is the pursuit of noble goals in which a person's self-regard prevents them from participating in "white collar crime". Another necessary emotional skill might be the *Interpersonal* one which allows people to express their feelings to colleagues and superiors honestly so as not to blindly obey orders that make them feel uncomfortable. The researchers supported their claim that accountants need emotional skills by citing a study in an accounting organization that was conducted by Daniel Goleman, Richard Boyatzis, and Annie McKee (2002). The study indicated that managers who had strong self control and interpersonal skills achieved a 360% incremental profit per year while those who just had strong critical rationality achieved just 50% annual incremental profit.

This chapter traced the background of emotional intelligence by at first going back to the traditional intelligence movement, then exploring perspectives that gradually moved away from traditional IQ. Since emotional intelligence is a relatively recent concept (the current year is 2010), before the researcher could explore its relations with

any domain, she had to supply evidence that it actually existed first. That is why the chapter outlined the theoretical research that researchers went through to prove that emotional intelligence is a valid construct both psychologically and neurologically .Then, it delved deeper into empirical research that explored its relation with other domains. Since the purpose of this research is to examine the relation between emotional intelligence and academic achievement, the empirical articles reviewed were related to quantitative studies made with the similar aim. The current research would be based on the previous research especially that of Downey et al. (2009) in which certain emotional intelligence subscales were positively correlated with certain academic subjects. The evidence compiled by the previous researchers on the relation between emotional intelligence and academic achievement will be used to support the findings of the researcher in an Arab, specifically Lebanese context. The following chapter will describe the methods used to replicate previous research if not in test instruments but at least in data analysis methods reviewed in this chapter.

CHAPTER 3

Methodology

The researcher wanted to examine the correlation between academic achievement and emotional intelligence.

This study is a quantitative, correlational one. An emotional intelligence test was administered to a sample of middle and secondary school students. The scores were correlated to their general academic achievement based on term 2 grades and then terms 1, 2, and part of 3, and finally terms 1 and 2 together. The results of terms 1, 2, and part of 3 were not taken into consideration because it was still the beginning of term 3 and most of the teachers had not yet made a large number of quizzes and tests, so the term's results did not truly reflect students' performance.

After the data was collected, it was analyzed using descriptive and inferential statistics. Age and gender were independent factors that were also taken into consideration in their relation to emotional intelligence scores (EQ).

Setting

Time. The research was mostly conducted in the second term of the academic year 2009-2010.

Place. The research was set in Beirut Baptist School which is a private Baptist school situated in a middle SES area, Mseitbeh, in Beirut, Lebanon. The test was conducted in

the students' English and advisory classes under the supervision of their respective English and advisory teachers.

Sample

Sampling. The sampling procedure was convenience sampling. The researcher had already used her grade 6 students for the pilot studies, so she used her grade 7 students for the actual test. She needed to have a higher age level which was also not confined with schedule constraints for official exams, so she selected grade 10 students because they had more English sessions than higher classes, and they could afford to lose an English session to sit for the test.

Participants. The students participating in the study shall be referred to as participants so as not to confuse reference to them with "school" academic subjects. The sample initially had 151 participants, but two were eliminated for too many missed items in their tests. The sample consisted of 149 participants (F= 68, M=81). There were 72 participants (F = 32, M = 40, Age Range 12-13) from grade 7 and 77 participants from grade 10 (F = 36, M = 41, Age Range 15-16).

Materials

Grades. Students' grades were obtained from the school itself. The academic averages of the terms were also offered by the school because the mean formula does not apply on the grades since each subject has a specific coefficient.

Measurement Instruments

The Six Seconds Emotional Intelligence Assessment for Youth, 2007 (SEI-YV Survey). The SEI-YV is a self-report with a five-point scale of 1 (Almost Never) through 5 (Almost Always). The scale consists of three example statements, 74 items corresponding to eight subscales and one consistency scale, and one Check Score consisting of 25 items in which the test taker would be able to compare his results to how he is actually doing in life. All the items are written in the first person point of view. For example: "I can say what I feel" or "People tell me their secrets." The test also contains a scoring sheet and a barometer graph in which the test taker is instructed to plot scores to see how the subscale scores compare to the norm.

Layout. The test was originally sent in a colored version. It was written in a table format .Its items were each put in a row facing the likert scale options . (Refer to Appendix A for a view of the test.)

Administration. The test was set to be administered to young people aged 7 to 18 who are able to read and score themselves. Test administrators are asked to read the statements aloud or at least till they are satisfied that the participants are able to continue on their own. Administrators can answer questions related to comprehension of terms but to be careful not to influence the test takers' responses.

Subscales. The eight subscales fall under a model called the K-C-G model which stands for Know Yourself, Choose Yourself, and Give Yourself (Six Seconds, the Emotional Intelligence Network, pp.7-8, 2008). They are going to be listed and explained below.

Know Yourself: Self Awareness

1. *EEL- Enhance Emotional Literacy*

-Recognizing and appropriately expressing emotion; being able to identify and interpret multiple and conflicting emotions

2. *RCP- Recognize Patterns*

-Identifying reactions and choices; being able to identify both positive and negative habits, and or repetitive behaviors.

Choose Yourself: Self- Management

3. *ACT- Apply Consequential Thinking*

-Evaluating the costs and benefits of choices before acting; being able to assign weight and evaluate the cost and benefit of choices and actions

4. *NVE- Navigate Emotions*

-Becoming skilled at transforming feelings; being able to choose an appropriate feeling or mood based on the context

5. *EIM- Engage Intrinsic Motivation*

-Building internal energy and drive; being able to establish and move towards goals based on internal rewards

6. *EOP- Exercise Optimism*

-Identifying multiple options for changing the future; being able to explain adversity as a temporary and an isolated situation that can be changed with personal effort

Give Yourself: Self –Direction

7. *ICE- Increase Empathy*

-Responding appropriately to others' feelings, being able to feel concern that comes from imagining the plight of another person

8 .*PNG- Pursue Noble Goals*

-Aligning daily choices with principles and purpose; being able to extend kindness and service to others, such as friends, family, community, and strangers, and/or being able to participate regularly in pro-social acts, such as sharing, cooperating, and helping without expecting personal benefit or reward

Scoring. Test-takers can score themselves by adding up specified items in each subscale. Some items have to be subtracted from six before being added up. (For a full view of the original test and scoring rubric, refer to Appendix A).

Reliability and Validity

Though the instrument is a relatively new one, its validity and reliability have been established and for view of the details, please refer to Appendix A.

The Researcher's Procedures of Testing Reliability and Validity

Validity. The researcher followed two steps to ensure face validity of the test. She administered the test to herself and to 10 grade 6 students and asked them what they thought it tested.

Reliability. The researcher made three pilot studies to check for the internal consistency of the test and its subscales.

Pilot 1

After the researcher printed out the test without the scoring rubric and made black and white copies of it, Grade 4's English teacher was asked to administer it for her class (ages 8-9).

The researcher instructed her to verbally explain what the participants should do on the test and to answer questions relevant to comprehension of unfamiliar words in the least interpretive manner possible. The teacher was also asked to circle on an empty test the items that the students asked about and to write down the meanings she gave. After the researcher collected the tests, she discovered that there were several unanswered items or items with more than one response. The students were given an extra 15 minutes to revise their answers under the supervision of their teacher. Then the researcher herself double checked and pulled out some students who still had not been able to fully revise their work in the time allocated. She circled the items needing revision and gave them 2 to 3 minutes to fill them out properly. The results were not very reliable. That was so because the participants were non-Native English speakers, so their age might have deterred them from comprehending the test very well. The layout of the instrument might have also been a negative factor. A second pilot study was needed.

The researcher conducted the second study in her own grade six class (ages 11-12) so that she can allow for more cognitively mature participants to respond to items to enhance reliability. She used the feedback of the fourth grade teacher to make modifications to the layout and verbal content of the test.

Pilot 2

Before administering the test, the researcher enlarged the font and retyped the whole test substituting the colors in the original format with a light shade, so that every three consecutive items were printed in a light grey while the next three were kept white.

She also rewrote certain words in simpler language that she considered would be as difficult for grade 6 as they were for grade 4. (Refer to table 6 in Appendix B).

Because the researcher herself administered the second pilot study, she noted that there were linguistically simple items which students misinterpreted, so she was able to make more effective modifications to the final pilot study.

Pilot 3

Before having another grade 6 class sit for the test, the researcher deleted the examples and 25 items of the Check Score. She also modified items for nuance difficulty.

In total, the researcher took out of the original test the three examples, the 25 personal items, and the scoring rubric. In addition to that, some of the 74 items were modified. Please refer to Appendices B and C for elaborations on the modifications made and for the last test version.

Reliability results of pilots 2 and 3. The researcher had conducted the pilot studies in an attempt to get a feel of the difficulties test takers might face in the test and to see how reliable the instrument with a Lebanese sample was. After the modifications in layout, length, literal and structural modifications, internal reliability improved in general. (Refer to Appendix D for reliability results.) The following section will examine the internal consistency of the actual test sample.

Actual Research. The actual research on grades 7 and 10 students (ages 12-13 and 15-16).The total *EQ* Score was reliable, Cronbach alpha = 0.894. In attempts to improve the reliability of the subscales, the researcher made modifications to the sample. She grouped the students' academic averages of terms 1 and 2 into low (ranging between 40th to 59th percentile), medium (ranging between 60th to 79th percentile), and high (ranging between 80th to 99th percentile). She removed responses that did not seem very reliable such as those with the same likert scale item for several items in a row, and she also tried to take out the special education students .The subscales which turned out to be reliable most of the times were *PNG, EIM, EOP, ICE, & PIN* (though *PIN* is a reliability subscale and is not included in the scoring of the emotional intelligence test). Table 2 in Appendix D presents the reliability of the subscales of the pilot studies, the whole data set and after the modifications.

Based on the reliability studies, the modifications served the subscales' reliability of the high achievers the most. Nevertheless, the researcher decided to keep the whole data intact including the high achievers' results because it is a correlational study, and the researcher needed to keep the sample as large as possible so that it could stay representative of the two classes.

Procedure

Administration. Both administrators were English teachers. They were purposely chosen to be so to be able to answer participants' questions about difficult items (in the least interpretative manner possible). The grade 7 test administrator was the researcher herself. The grade 10 test administrator was the class English teacher.

After students completed the test they were asked to revise for missed items or more than 1 response to an item. The test administrators double checked the answer sheets in class and even afterwards. Students who had missing responses were asked to fill them out again and were even pulled out of other classes for them to take a minute or two to revise.

Time. Students were not given a specific time to take the test. The average time they took was 30 minutes. Five to ten extra minutes were given for revision.

Confidentiality. The use of students' names was irrelevant after the process of revising, so directly their names were changed to numerical codes in order to sustain the privacy of their responses.

Data Analysis

Data was plotted in the SPSS Statistics 17.0 program. The methods of quantitative data analysis used were descriptive and inferential statistics. Descriptive statistics (central tendency and variance) were used for the grades. Inferential statistics (t- tests, reliability, bivariate correlations, and regressions) were used for the emotional intelligence scores.

Grades' descriptive statistics. The school had already offered the means of grades per term, so the researcher just used the SPSS statistics program 17.0 to compute the means of individual subjects and total averages of terms one and two together.

The researcher used a cut off score of 60% as the mean of grades because that was the passing average required by the school. She grouped participants as low achievers whose academic averages ranged between 40 and 59, middle achievers whose academic average ranged from 60 to 79, and high achievers whose academic averages ranged between 80 and 99. The cut off score of 60 was picked because it is the minimum passing

average while the number 80 was picked because it was the minimum exemption average required by the school for most subjects.

Emotional intelligence scores' inferential statistics. The researcher used the software program to find out the reliable subscales in the study. She tried to improve the internal consistency of subscales after removing special education students and also after removing unreliable data. She also found the reliability of the scales of high, mid, and low achievers of terms one and two and combinations amongst those. Only subscales with Cronbach's alpha > 0.5 significant reliability were retained.

She used the program to find if there is a positive correlation between the term averages and the emotional intelligence scores and mean scores of the whole data set and then from low, medium, and high achievers and combinations amongst those. Correlations between individual academic subjects and emotional intelligence subscales were made and followed by regression studies to determine which subscales were the strongest predictors of correlations with subjects. On one hand, independent samples *t-tests* were used to compare females' and males' EQs. On the other hand, they were used to compare younger and older participants' EQs.

This chapter has explained the methods used in the quantitative study of examining the correlation between academic achievement and emotional intelligence (the independent variables being age and gender) in two classes in a school. The following chapter will display the results

CHAPTER 4

Results

As previously mentioned, the study examined the correlation between emotional intelligence and academic achievement of a sample of students whose demographic data is listed in the table below.

Table 1

Demographic Data

Classes	N	Male	Female	Age Range
Grade 7	72	40	32	12-13
Grade 10	77	41	36	15-16

This chapter is organized in terms of 4 hypotheses:

Hypothesis 1: There is a positive correlation between emotional intelligence and general academic achievement.

Hypothesis 2: There is a positive correlation between emotional intelligence and academic achievement in specific subjects.

Hypothesis 3: There is a positive correlation between age and emotional intelligence.

Hypothesis 4: Females tend to have higher emotional intelligence than males.

The chapter will present results relevant to correlations of emotional intelligence total scores and general academic achievement .Then, the correlations between subscales and subjects will be displayed. The chapter will also present the findings related to whether age or gender have any relation to emotional intelligence.

Correlations

The researcher correlated the general academic average of the whole sample (N = 149, M academic score = 68.9, SD =11.5) and their total emotional score (M emotional score = 559.30, SD = 61.298) in term 2 and the correlations of terms 1 and 2 (M = 68.36, SD = 11.34). In all of the aforementioned statistical procedures, there was no correlation between general academic achievement and general emotional intelligence scores.

High Achievers

Correlations of high achievers' academic and emotional results. The high achievers' academic results were correlated with their emotional intelligence scores in term 2 (N = 25, M = 87.39, SD = 4.36) and terms 1 and 2 (N = 25, M = 86.6, SD = 4.72). Then, the EQs of the top 20% (cut off academic average = 78) and lowest 20% (cut off score =58) were compared using a t-test and there was also no significant difference in the means. The first hypothesis was not confirmed though the top 20%, $t\ (54) = -2.308$ performed better in the subscale , *Exercising Optimism* (*EOP*) than the lowest 20%, $t\ (41.857) = -2.224$. The first hypothesis was not confirmed.

The second hypothesis was confirmed. There was a positive correlation between certain emotional intelligence subscales and academic subjects. The correlations of terms 2 and 1 and 2 and their regressions will be listed below.

Term 2 correlations. Grade 7 and 10's academic achievement in school subjects and their total average were correlated with the reliable subscales. Special education students do not study certain subjects such as French, Geography (Geog), PE, and /or Civics while grade 10 students study Chemistry, Economics, and Sociology alongside the subjects that grade 7 students study, but they don't study computer. The correlations displayed in table 3 were done accordingly.

Table 3

Term 2 Correlations of Subjects, Emotional Intelligence Subscales and Total Score

EQ & Subscales	LIFE SCIENCE (N=149)	FRENCH (N=140)	GEOG (N=148)	ECONOMICS (N=77)	PE (N=148)
Engage Intrinsic Motivation (EIM)		.196*	.183*	.287*	
Exercise Optimism (EOP)	.184*	.191*	.189*	.330**	
Increase Empathy (ICE)					-.174*
TOTAL EQ				.276*	

Note: **. *Correlation is significant at the 0.01 level (2-tailed).* *. *Correlation is significant at the 0.05 level (2-tailed).*

Terms 1 and 2. The correlational studies of terms 1 and 2 were conducted separately and then a total mean was obtained from the two terms. Emotional intelligence subscales and subjects' averages were correlated. Significant correlations between English, French, Geography, Life Science and Economics and some of the subscales are presented in table 4 in Appendix D. Regression studies of terms 2 and terms 1 and 2 together will be presented in the following section.

Regressions

Term 2 regressions. The results of the regression indicated that EOP was a significant predictor of correlation between Economics and the independent variables EOP and *Engage Intrinsic Motivation(EIM)* , $t(76) = 2.064$, $p < .05$. As for French and Geography *EOP* and *EIM*, both equally contributed to the correlation with no significant predictor.

The following sections will examine the relation between age, gender and emotional intelligence.

Age

A *t- test* was used to compare the EQ total scores of the younger adolescents (*N = 71, EQ= 570.14, SD= 64.757*) to those of the older ones (*N= 78, EQ = 549.43, SD = 56.593*) and there was no significant difference. Hypothesis 3 was not confirmed.

Gender

The researcher expected that females will score better than males in emotional intelligence, but this hypothesis was not confirmed.

The means of performance of both males and female were compared and will be presented as will the reliability of the subscales. Then, the same process will be repeated for high achievers.

Comparison of means of males versus females' responses. An independent- samples *t* test was made to compare the total EQ scores differences between males ($N = 81$, $EQ = 553.68$, $SD = 63.89$) and females (N = 68, $EQ = 565.99$, $SD = 57.81$). The results conveyed that there is no significant difference ($p > 0.05$) between males and females' performance in any of the emotional subscales.

Reliability of males and females' responses to subscales. In general females had more reliable subscales than males. Scales in which Cronbach's alpha > .5 were accepted. The data is presented in the table below.

Table 5

Internal Consistency (Cronbach's coefficient's alpha) of Males and Females Responses to Subscales

Subscales	Females	Males
Engage Intrinsic Motivation (EIM)	.580	.703
Exercise Optimism (EOP)	.738	.725
Increase Empathy (ICE)	.700	.652
Pursue Noble Goals (PNG)	.635	.605
PIN Consistency	.672	.645

Note: Underlined reliability scores are higher than their counterparts.

Male and Female High Achievers

A *t- test* was used to compare the high females' to that of the males'. In the high achievers' sample there were 10 males and 15 females. There was no significant difference between the means of the two groups except in the subscale *EIM* where males t (23) =2.308, $p < .05$ had a significantly greater reliable mean score ($M = 83.78$, $SD =$ 10.375) than the females t *(17.759) = 2.251*, $M = 74.67$, $SD = 9.193$).

The results in this chapter did not indicate a correlation between emotional intelligence and academic achievement in general. Contrary to background literature, gender and age did not seem to have any significant effect on emotional intelligence.

The results indicated that the hypothesis related to a positive correlation between some school subjects and emotional subscales was confirmed. The other hypotheses were not confirmed. The findings that supported background literature and that contradicted it will be further discussed in the following chapter.

CHAPTER 5

Discussion

Research has suggested that academic achievement could not just be reached by cognitive abilities. Other skills are required to motivate students to learn, to manage the stress they might face during school years and to persist in exerting efforts even if tasks become more difficult. It has been proposed that emotional intelligence might be one of the non cognitive factors contributing to academic achievement. There has also been evidence that female emotional intelligence test takers usually do better than males and that the older the students, the better they achieve in those emotional tests. The purpose of this quantitative study was to try to fill a gap in current research about Lebanese students. It sought to find evidence that a sample of Lebanese students' emotional intelligence is related to their success at school and that their emotional skills vary with age and gender.

The Instrument's Reliability

Reliable Subscales

Since the test is a new test made in the year 2007, its makers might have had the opportunity to simulate psychometrically valid tests made before them. The subscales are also expected to be reliable because the test makers had conducted several pilot studies on different samples and up until the present are encouraging researchers to use the test, so they can use their feedback in future modifications. Bar- On and Peter Salovey who are on the board of trustees of the test have actually quite a history in emotional intelligence tests being test makers themselves. The test subscales being supervised by an experienced board and subjected to continuous improvements make it come as no surprise that there were five reliable subscales in the current research (*EIM, EOP, ICE, PNG, & PIN*).

Unreliable Subscales

The unreliable subscales were four (*EEL, NVE, RCP, & ACT*). The following subsections will attempt to explain why they were unreliable.

Enhance Emotional Literacy (EEL). Lebanese adults do not usually pay much attention to youth's feelings. In accordance to the general Eastern trend, youth are seen but not heard. Their parents expect obedience and respect. The concept of this item might have been unfamiliar to students. In addition to that, the culture considers voicing feelings a sign of vulnerability and an invitation for ridicule and belittling from others.

Students' responses were probably unreliable in this subscale because they are not culturally used to healthy and honest emotional expression since their culture either trains them to mask feelings to be socially accepted or only models violent behavior as a form of expression. This brings on the examination of another unreliable subscale relevant to handling strong emotions and expressing them healthily to solve problems.

Navigate Emotions (NVE). As aforementioned, for the Lebanese layperson verbally expressing feelings especially strong ones is very difficult. The items of the subscale are related to how participants manipulate their feelings in times of stress which actually compounds the culturally innate problem. Strong feelings especially negative ones are only expressed offensively and indirectly in extreme cases of anger using inappropriate language or violence. The lack of reliability of the subscale might be due to students' ignorance of the concept of selecting the right display of emotions in the right context. Students might have been trying to fake good since for them emotional expression might be displayed through offensive behavior which the researcher might not have condoned in the school setting.

Recognize Patterns (RCP). Though the test makers' aim behind the subscale was to see whether test takers are able to identify habits they have; however, the only items that asked about that were items 16 and 56. The other five items were distracters, so maybe the test makers needed to add more relevant items to improve validity. The last unreliable subscale was *ACT*, which the following section will deal with.

Apply Consequential Thinking (ACT). The items deal with how impulsive students are, and being teens applying consequential thinking to actions might be in opposition to what the hormonal spurt dictates. Teens are known for testing the limits in their crisis of self-identity search.

They actually might partake in risky behaviors that their parents' critical thought might have forbidden. The whole aim would be to try out new experiences and identities regardless of the consequences. The participants themselves are passing through a transitional phase in which they used to be the oldest in their campus and they suddenly became the youngest when transitioning from elementary to middle school and from middle to secondary school.

So maybe the new context might actually be a self-fulfilling prophesy in which the youth are expected to be impulsive and irrational and they simply do. The participants might either be trying to fake good by lying or they might actually be in a state completely opposite to what the items were asking about hence their unreliable answers.

Exceptions to Reliability

High achievers and *NVE*. The only time *NVE* was reliable was with the high achievers' sample. That could be explained by the fact that high achievers are maybe better in English than the rest of the sample. Their linguistic skill compensated them for the cultural gap and they were able to fully comprehend what the subscale items meant. It

is possible that being high achievers, they might be more rational and capable of resorting to healthy verbal emotional expression instead of violence, so they were more aware than others of the concept brought forth. *NVE* was reliable with high achievers unlike its situation with the rest of the sample while *ACT* was exceptionally reliable with low achievers and high achievers and that will be explained in the section below.

Low and high achievers and *ACT*. Based on the study of Olszewski-Kublius, P. et al. (2006), young people who are exceptionally intelligent tend to apply less impulse control than normative groups. The reliability results of this study do not support that idea. The reason could be that the previous research compared gifted learners to the norm while this study is comparing a very small sample of high achievers ($N = 25$) to another small sample of low achievers ($N = 32$), so the sizes of the sample as well as the nature might be the ones affecting the results.

Hypothesis 1

The results of the study did not provide evidence to confirm hypothesis one. There is no correlation between general academic achievement emotional intelligence. This could be because of the following reasons: Not all subjects were correlated with the subscales, so mathematically their averages would not correlate. The second reason could be referred back to what Goleman, D. (2001) said about IQ. He said that as a general threshold, IQ might be required for admittance into a certain field but once in thefield, EQ plays its role in the specifications of tasks. Similarly, IQ could be the criterion required for achievement in school in general; however, when it comes to certain subjects, EQ subscales play their role.

High Achievers

Though in general, background literature provided evidence that high achievers had higher emotional intelligence than low achievers, in this study the high achievers' EQs were not significantly different from the low achievers'. This actually supports Olszewski-Kublius, P. et al. (2006) in their research on the gifted. Though the high achievers in this sample are not necessarily gifted, they might not be endowed with more emotional intelligence than the rest of the sample. As mentioned in research, the growth of cognitive skills might come at the expense of emotional intelligence development. It is also possible that parents and educators tend to focus more on developing high achievers' academic skills, disregarding other skills. The researcher tried to improve the results by comparing the EQs of the top 20% of high achievers and the lowest 20%, but still there were no significant differences. A point worth repeating is that the samples of high ($N = 25$) and low achievers ($N = 32$) might have been too small for reliable statistical comparisons. However, an interesting finding was that the top 20% performed better in EOP in spite of the size of the sample. This supports the research of Olszewski-Kublius, P. et al. (2006). The gifted learners in their study performed better in *Adaptability* than medium and low achievers. If the 20% of the high achievers were to be compared with the gifted, then being optimistic might be linked to seeing hope in the midst of difficulties or changes and surviving. This is also in alignment with Goleman's research (2001) on star performers in businesses whose optimism and flexibility are the factors which correlate with their success.

Hypothesis 2

The researcher hypothesized that academic achievement in certain academic subjects would positively correlate with performance in emotional subscales. This hypothesis was confirmed.

The subjects were examined in terms 2, and 1 and 2 together. The researcher chose to keep term two's results separate because the emotional intelligence test was administered during that term, so the grades would be mostly relevant during that time.

Geography. According to Downey et al. (2009), Geography is correlated with the subscale of *Understanding Emotions (UE).* The results of the current study were in accordance with that since Geography was positively correlated with *Engaging Intrinsic Motivation (EIM)* in terms one and two and with *EIM* and *Exercising Optimism* (*EOP)* in term 2.

EIM and UE. If it were possible to correlate the two tests' subscales it might have been possible to realize that understanding one's emotions is positively correlated with relying on personal feelings for motivation. If a person understands his own feelings, he might be able to use them to motivate himself in order to study a subject that requires rote memorization in most instances. Since Geography is a study of material that is not personally relevant to a student's character or daily life, it might require that a student resort to inner feelings of excitement at learning about the structure of the Earth and its countries to build intrinsic motivation to acquire it. Geography is not a subject that is possibly highly esteemed by people since it is a relatively specific area of study that might serve in just certain life domains. It is also considered a secondary subject in the Lebanese curriculum, so probably that is why *EIM* scale and the *UE* subscale are correlated with it. Maybe students, who are skilled at understanding their own feelings and urges for achievement, intrinsically offer themselves rewards for achievement in the subject because they might not be receiving those rewards from people around. *EIM* was correlated with Geography in terms 1 and 2 and according to the regression study it played an equally predictive role with *EOP* in term 2.

EIM, EOP and UE. In term 2, *EOP* and *EIM* were both positively correlated with Geography. Since the previous section analyzed how *EIM* could be related to *UE* of the previous research, this section will try to analyze how *EOP* might be related to *UE*. *EOP* is related to the skill of exerting personal effort in order to face difficulties. Knowing that with personal effort and hope, hardships could be explained as temporary could be related to understanding emotions. If a person does not understand how negative feelings are bound to change with personal effort, then he could never face stressful circumstances and he would never get over negative emotions to progress.

As mentioned earlier the study of Geography and success in it might not be easy for students because school curricula usually view it as a secondary subject and so does society as a whole. Its material might be considered dry by many students and so the students who excel in such a subject might indeed be overcoming an obstacle. Thus understanding their possible negative feelings associated with the subject and still being able to seek and find the personal stimulation to pursue it does require having a high skill of exercising optimism.

French and English. Just like *EOP* and *EIM* played equal roles in predicting the correlation between them and Geography, they also played equal roles in predicting the correlation between them and French in both term 2 and terms 1 and 2. EOP alone was correlated with English in terms 1 and 2. The results of this study are in alliance with the study of Gardner, R. C (1960, reprinted in 2005) which signified that learning a foreign language specifically requires that learners have motivation because it requires extra effort. In a more recent study by Pishghadam ,R. (2009), results indicated that actual emotional intelligence skills such as managing stress, understanding feelings, expressing emotions, accepting oneself, depending on oneself, realizing one's potential and exercising optimism were positively correlated with learning and success in a second language . This is just further proof why the emotional subscales *EOP* and *EIM* were positively correlated with success in French and EOP with English in the current study. The two subscales will be further related to the subscales of the background literature in the following section.

As aforementioned, *EOP* is related to exercising optimism. Since learning a foreign or second language requires exerting effort in oral and written skills at the same time unlike the graduated process which children follow when they are learning their mother tongue, it is a stressful task.

The learner has to exert a conscious effort to learn a language that contains words that might be completely unfamiliar to him. For example in the study of Pishghadam, Iranian students were learning English while in the Lebanese sample Arabs were learning French and English. Though the Lebanese students are familiar with the English language, so learning French might come easier to them. This does not mean that handling the stress that comes with being at a beginner's level at the age they are at does not require that they exercise optimism. It would actually require them also to "engage intrinsic motivation" which is what EIM stands for and which both Gardner (1960) and Pishghadam (2009) spoke about. In Gardner's study French learners' motivation propelled them in learning the oral aspects of the foreign language. Similarly, in Pishghadam's article, being able to depend on oneself and not on others for support and to realize one's emotional strengths were related to motivation and correlated with success in listening and speaking. Thus emotional skills' playing a role in learning oral skills of a foreign language has been supported by the current and previous research.

Life Science. The results of the current study showed that there was a positive correlation between life science and EOP in terms 1 and 2 and 2 alone which is backed up by Downey et al.'s (2009) research. That research also revealed that Science was correlated with the Emotional *Management and Control* subscale. Science is a field that requires that a person be very objective.

It needs a person to overcome personal emotions in order to perform required tasks. Since it is one of the most major requirements for entering health care institutes, it would make sense that future doctors and nurses need to learn to manage their emotions and handle them so that they do not interfere with their efficacy on the job (Chen, P., 2010). Dealing with the sick requires a lot of understanding of others' feelings and display of a caring attitude regardless of what emotional difficulties a person might be facing.

Speaking of emotional difficulties and the necessity to manage them could very well be related to exercising optimism. Students who perform well in science have a higher chance of succeeding as nurses and doctors if they are able to deal with all that sickness, pain, and even death with optimism. Being good at science might require that a person view situations no matter how hard with optimism and to manage personal feelings that might interfere with performance. The actual studying of the subject might involve the memorization of scientific jargon which might be a daunting fact especially that some of the scientific terms might come from Latin or Greek origins. So *EOP* would be needed here to modify students' view of the subject.

Term 1 average. The present study found that there is a positive correlation between the first term average and *EIM*. This seems to come in compliance with Downey et al.'s study (2009) in which the *Emotional Management and Control* subscale was positively correlated with total academic average. At the beginning of the school year and especially in a new campus, students are assailed with a number of feelings of worry and stress. However because they care about social desirability, they do not want to reveal their fragility and distress to others.

That is why exercising self-control and the ability to recognize and handle emotions in the right time and place might be needed to pass through the initiation stage. The difficulties in this initiation phase might frustrate students who might be introduced to new teachers, campus, and curricula. Hence they would need to exercise intrinsic motivation to push themselves onward and not break down under the weight of change.

Economics. According to the regression study, *EOP* was a strong predictor of correlation with Economics both in terms 1 and 2 and term 2. The study of Economics might not be as common as the previous subjects, so no research was found that supports this correlation. However in his reports of studies that linked emotional intelligence to the workplace, Daniel Goleman cited explanations that might be relevant to the topic. Because the study of Economics might involve certain problem solving situations simulating real life problems, optimism might also be a required skill. As Goleman (1995) mentioned in his book, "*Working with Emotional Intelligence*", the current times require that mangers have problem solving skills that are put to full use in crises by personal motivation and optimism. By being optimistic, managers are able to see hope in tough situations and come up with effective solutions. This skill of being optimistic could be similar to a student's attitude in dealing with hypothetical problems that might seem overpowering to those who are unable to engage their minds in a state of motivation instead of boredom or tension. In term 2, Economics was also positively correlated with total emotional scores (EQ). This might indicate that students who are high achievers in Economics might actually be emotionally intelligent in general. In our modern day, reaching the top positions in running businesses requires more emotional capacities than intellectual ones as Goleman stated in his book "*The Emotionally Intelligent Workplace*".

In that book, Goleman cited a study by Spencer and Spencer (1993) that revealed that just 3 out of 21 competencies that set superior performers at a higher level than average performers were cognitive.

The rest of the required capacities were related to emotional intelligence. So the findings of this research suggest that the more emotional skills the person has, the more successful he would likely be in the field of business and furthering economics. Emotional skills such as *Engaging Intrinsic Motivation* (*EIM*), *Exercising Optimism* (*EOP*), *Pursuing Noble Goals* (*PNG*), and *Increasing Empathy* (*ICE*) might all be required for a successful economist in our modern day.

ICE. In order to be successful in fields requiring knowledge of economics, students might be asked to hypothesize situations in which they as managers would need to work with a team to solve problems. If a person does not show empathy to others, this might hinder attentiveness to what others have to say. So team effort would be futile as stated in a summary (2001-2003) of Goleman's book, *Working with Emotional Intelligence*. That same skill is also deemed necessary in the economic field according to Esmond-Kiger et al. (2006) who explained how forgery and robbery might be prevented in accounting situations if accountants had more empathy towards others. They also continued to describe the necessity of integrity in such fields which could be related to PNG.

PNG. In a situation where the promise of fast money might be too tempting for people in the financial fields having the positive self-regard to resist such temptations might go under *PNG*. According to Esmond-Kiger et al., success in the field of Economics not just means that one is good with numbers and dry facts, students who truly excel in the field might be the ones who can truly show care for others' and depend

on their knowledge and respect of themselves in order to pursue noble goals that lead to long term honest success of a hypothetical company and not just short term profits.

For the study of Economics, students might need emotional skills to have a positive view (*EOP*) that would intrinsically motivate (*EIM*) them to study the jargon of the subject, and to be able to use that intrinsic motivation to pursue noble goals of success (*PNG*) in the subject in spite of its difficulty. They might also need to combine these skills with the empathetic skills (*ICE*) of true managers to hypothesize new situations and perform well in problem solving exercises and to rely upon their internal p*ursuit of noble goals (PNG*) to come up with ethical solutions to the hypothetical situations they are put in.

PE. The finding that PE is negatively correlated with *ICE* was at first surprising to the researcher because based on the research of Rapisarda, B.A. (2002), emotional skills such as cooperation and empathy are positively correlated with perceptions of team unity and strength. However the reason why PE performance tends to decrease with an increase in empathy is because PE in school is not usually practiced in teams. Students are taught to do exercises alone and they might individually compete against each other. It makes sense that they would not need to be empathetic with others. What they actually need is to set personal goals and achieve them without having to cooperate with others. They actually need to view others as opponents to be able to beat them. That is probably why, the more empathetic they are to others, the more likely it is that they will not be able to beat them. Hence their emotional intelligence skill in such a situation would have an inverse effect on performance in the subject.

Hypothesis 3

Based on the researcher's examination of background literature, she expected that the older the participants, the higher their emotional intelligence performance would be. The results did not confirm that hypothesis.

This could be because of the instrument itself or the age range. These reasons will be examined in the sections below.

The instrument. The test makers themselves state that in their test, participants' performance is not influenced by their age.

The age range. A final reason why age and emotional intelligence did not positively correlate could be that the sample had very similar age groups. Grade 7 students were 12-13 years old while grade 10 students were 15 to 16 years old. The age range was 3 years. Maybe the older youth needed to be much older for their maturity level to enhance their emotional skills. A larger age range might have been needed to have a statistically significant difference of emotional intelligence between a younger and an older youth sample. According to Bar-on (2006), age does impact emotional intelligence if young people are compared to adults aged 40 and above. It might need an age range of minimum 10 years to show a significant change in emotional intelligence.

Hypothesis 4

The hypothesis was not confirmed. The females of the sample did not score higher in emotional intelligence than the males because according to the test makers they don't usually do on this test. However the test makers expected that girls would score higher in the consistency subscale.

Berenson's research (2008) also supports the fact that males' responses tend to be more inconsistent than females' which is evident in the fact that PIN was significantly more reliable for girls than boys.

The researcher compared the mean scores in emotional intelligence subscales and scores within the high achievers' sample itself. Though there was no significant difference between the means, an interesting finding was that males scored significantly higher in *EIM* than females. This is actually supported by the research of Downey et al. (2008) who noted that males had more intrinsic motivation than females. This could be the case because girls being by nature more socially interactive might rely on others for rewards while boys might need to be more self-reliant since they are not culturally brought up to depend on others for emotional support or rewards.

Delimitations

The instrument

Newness. The test used in the research was a relatively new one. It had been tried in North America and the Far East but not in the Middle East and its makers were encouraging researchers to try the test and add to the database the company was gathering. In spite of the significant results that were found, if the test were revised in the future even better results could be yielded.

Language. The test was presented in English, so language might have been a barrier to comprehension despite of the modifications made.

Sample Uniqueness

High achievers. Samples could have been larger and more evenly distributed, so more research could have been conducted to compare high, mid, and low achievers to find out how their emotional skills vary.

Age range. The results of the study may not be generalized to age groups different from the ones of grades 7 and 10 that were studied. A larger sample with a larger range of age groups might be used so that future researchers can validate whether emotional skills do develop with age or not which is a very essential point seeing that emotional intelligence promoters state that the advantage of this intelligence is that it is not as deterministic as traditional intelligence.

Recommendations

If researchers find evidence that supports the flexibility of emotional intelligence, a breakthrough in education could be made. Then, emotional intelligence education programs would become as necessary as mainstream educational programs if not more. Educators and parents would be offering youth the opportunity to truly develop skills and to move forward with society as a whole instead of being destined to certain domains that were permanently determined by traditional intelligence.

The current study might have insinuated causal relations between success in certain subjects and emotional intelligence subscales which is not accurate. The study being correlational does not indicate causality. It would be left for future researchers to conduct experimental studies to validate that emotional intelligence subscales have a cause and effect relation with success in school subjects.

Additional research seems needed to explore which emotional domains do females outscore males in because the suggestion that females are more emotionally intelligent than males seems too general especially that there is conflicting evidence in specific subscales. This is also applicable for the hypothesis that the older a person gets, the more emotionally intelligent he becomes. It seems that the test used not just limits the finding of whether gender influences performance in emotional intelligence tests but that it also limits finding whether age plays a role too. Future researchers are recommended to select different tests that would fully explore the influence of these two variables as well as others.

Though background literature backs up the validity of self-report tests, (Perez, J.C., Petrides, K.V., Furnham, A. , 2005) emotional ability tests might be recommended as well since they might provide a different perspective on participants' actual emotional abilities and not just what they believe them to be.

The ultimate aim of this research was to shed light on the fact that there are abilities different than intellectual ones that influence people's performance in life. It is said that IQ contributes to 10% of success. If emotional intelligence turned out to contribute just with 10% as well , then it would be a good opportunity for researchers to conduct further research in the area of emotional intelligence and how it contributes to success.

Future stakeholders are recommended to take into consideration emotional intelligence and not just IQ based assessment criteria for recruitment or admission to different domains.

Emotional intelligence training could benefit employers, employees, social workers and community centers (such as prisons, juvenile delinquency centers, orphanages..) to acquire or hone success related skills.

If emotional intelligence actually plays a role in achievement in school subjects, future researchers are urged to explore what roles it plays in other domains. If emotional intelligence is a changeable competence that combines with other factors to affect students' school performance, then it is worth further exploration.

Further research might come up with awareness and education programs for early caregivers and educators right from the beginning of a person's life. In this way, emotions as well as minds would be developed early on, and if certain cognitive capacities are predetermined, then emotional capacities give hope for development programs that could train children, youth, and adults handling those youth's lives for a healthier existence with oneself and with others in the community, country, and world.

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APPENDIX A

The Original Instrument, Psychometrics and a Sample Report

Six Seconds' Emotional Intelligence Assessment for Youth (SEI-YV)

NOTES TO TEACHER / PRACTITIONER

Please read before administering the SEI-YV

This assessment is designed for use with age groups 7/8 to 18, either individually, or in group format. We highly recommend that teachers do the assessment and self-score it to gain first-hand experience, before administering this to children.

The SEI-YV is printed on pages 1-3 and will take about 30 minutes to complete. The self-scoring section (on the back of pages 1-3) will take additional time (another 30-40 minutes for students) and can be done in a second session if necessary or preferred.

Two dates are required at the top of page 1. To avoid any confusion, you may wish to fill in the assessment date BEFORE distributing the SEI-YV, leaving the student to fill in the birth date only.

Depending on the age or reading ability of the students, you may read the statements aloud to the group – either all of the statements, or only the first few until you're satisfied that the group can proceed on their own.

You may answer students' questions in order to clarify the exact meaning of a word, but be extra careful not to influence their response to that statement.

Each student should have a book to read or quiet activity to do when they have completed page 3. This will allow students who work at a slower pace the time to complete their survey.

The self-scoring section on the back pages of the survey should be started when ALL students have finished the survey.

OPTIONAL: If desired and for additional discussion and insight, it would be helpful if students put a question mark (?) beside the number of any statement(s) they find difficult or confusing. This may be appropriate for older students. DO NOT REQUEST THIS if you believe it will cause any confusion.

The SEI-YV offers several application possibilities for integrated teaching in classroom format. For example, the teacher can use this as a practical exercise of multiple choice evaluation, addition and multiplication when tallying scores, graphing variations, and writing about themselves. Teachers can use the results to prepare what learning styles best suit the children, and share the results with parents if desired. The opportunities are as wide as the teacher's creativity!

INSTRUCTIONS FOR ADMINISTERING THE SEI-YV

1. Make sure each SEI-YV copy contains three pages, printed front-to-back. Each survey page will have its matching self-scoring page on the back. The pages should turn like a book; and upside-down flipping of pages indicates incorrect printing. Pages that are printed skew may pose challenges during self-scoring.

2. Hand out one SEI-YV copy to each student. Let each child check that they have received three pages.

3. The objective of completing this survey is for youth to learn more about themselves and how they relate to others. This is unique for every person. Inform the students that their answers will remain confidential.

4. When working with a group, have students PRINT their information in the top section of page one. Ask students to wait for all to complete this section and await your further instruction.

5. Read the directions in the grey box aloud together to ensure understanding. Emphasize that there are NO RIGHT answers and that students should NOT OVER-ANALYZE their responses. Students should not ponder on a statement; their first impression is the best.

6. Review the FIVE-POINT SCALE, where the student chooses one of the answers from 1 (ALMOST NEVER) through 5 (ALMOST ALWAYS). This scale is used for every statement in the survey. Ask if everyone is clear on how to use the response scale.

7. Allow time for the students to do the EXAMPLE STATEMENTS and ask for assistance if necessary, or if preferred, do them together.

8. Instruct students to work at their own pace until they reach the bottom of page 3 and STOP there. Remind students to do silent reading or another quiet activity after they have completed page 5, and until they are given the next instruction.

9. There is no time limit to the survey, but you may guide them by saying after about 15 minutes "You should be near the end of page 2".

10. Once all students have completed their survey, ask them go through every page and check that they have not missed any statements, or gave two responses. Where this has happened, ask them to complete/correct.

You are now ready to start the self-scoring. Follow Steps 1-7 on the backs of pages 1-3 of the survey.

In exchange for this unlimited free use of this survey and self-scoring, we kindly ask that you capture the students' scores in a handy spreadsheet that we provide and send it to seiyv@6seconds.org. This will help us with continued research to ensure that you are using the best youth EQ tool available in the market today. Thank you.

Six Seconds Emotional Intelligence Assessment for Youth
SEI-YV Survey

sixseconds

ne: _____ _____ / / mm dd yyyy

Male ___ Female ___ Today's date: / / mm dd yyyy

y: _____ Age: _____ years

te: *The purpose of this assessment is …*

Emotional intelligence is …

Emotional intelligence is important because …

ch sentence and choose the answer that best describes you. Choose only ONE answer for each sentence and CIRCLE the number thes your answer. This is not a test; there are no good or bad answers. Be as honest as you can - your first thought is the best.

e the three examples first. If you need help, you may ask an adult to explain to you mark your answer for each sentence to the right. Choose your own answer.	Almost Never	Seldom	Some-times	Often	Almost Always
a. I feel great.	1	2	3	4	5
b. I think positively.	1	2	3	4	5
c. I am in a good mood.	1	2	3	4	5
to do the rest on your own.	Almost Never	Seldom	Some-times	Often	Almost Always
I solve my fights with friends.	1	2	3	4	5
I am good.	1	2	3	4	5
I can say what I feel.	1	2	3	4	5
I understand what makes me happy.	1	2	3	4	5
I am creative.	1	2	3	4	5
I use my words instead of my fists.	1	2	3	4	5
I can help with world problems.	1	2	3	4	5
I am bad.	1	2	3	4	5
I can see whether people are amazed, or surprised.	1	2	3	4	5
I solve my problems.	1	2	3	4	5
I admit when I have done something wrong.	1	2	3	4	5
I share my feelings with others.	1	2	3	4	5
I feel terrible when people are sad.	1	2	3	4	5
I don't break rules.	1	2	3	4	5
I can tell adults what I am feeling.	1	2	3	4	5
I change my behavior when I need to.	1	2	3	4	5
People tell me their secrets.	1	2	3	4	5
I do as I'm told.	1	2	3	4	5
I can cheer myself up.	1	2	3	4	5
Before I do something, I think of how my family will feel.	1	2	3	4	5
I work well with others.	1	2	3	4	5
I will practice until I get it perfect.	1	2	3	4	5
I want to learn about myself.	1	2	3	4	5
I know how I learn best.	1	2	3	4	5
I listen carefully to my friends.	1	2	3	4	5
I volunteer to help.	1	2	3	4	5
I do what is right.	1	2	3	4	5

continue on the next page …

Six Seconds Emotional Intelligence Assessment for Youth
SEI-YV Survey

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We want to make sure you don't lose this page.

ach sentence and choose the answer that best describes you. Choose only ONE answer for each sentence and CIRCLE the number tches your answer. This is not a test; there are no good or bad answers. Be as honest as you can - your first thought is the best.

		Almost Never	Seldom	Some-times	Often	Almost Always
.	I know when I need help.	1	2	3	4	5
.	I finish what I start.	1	2	3	4	5
.	My friends look up to me.	1	2	3	4	5
.	I don't tell lies.	1	2	3	4	5
.	I ask for what I need.	1	2	3	4	5
.	I can change a bad habit.	1	2	3	4	5
.	I share my things to help people feel better.	1	2	3	4	5
.	I take people's feelings into account.	1	2	3	4	5
.	I have lots of words to describe how I feel	1	2	3	4	5
.	I focus on what I want to do.	1	2	3	4	5
.	I want to tell people how I feel.	1	2	3	4	5
.	I make people feel safe.	1	2	3	4	5
.	I have more than one feeling at a time.	1	2	3	4	5
.	I can tell by people's faces what they are feeling.	1	2	3	4	5
.	Most of my wishes come true.	1	2	3	4	5
.	I hide my feelings.	1	2	3	4	5
.	I can calm down an angry friend.	1	2	3	4	5
.	I give up what I want to help the group.	1	2	3	4	5
.	I pay close attention to what people say or do.	1	2	3	4	5
.	My dreams will come true.	1	2	3	4	5
.	I do things without thinking.	1	2	3	4	5
.	People tell me I am kind.	1	2	3	4	5
.	I like using descriptive words when I write.	1	2	3	4	5
.	People's actions make sense.	1	2	3	4	5
.	I learn new things from problems.	1	2	3	4	5
.	When I want my way, I stretch the truth.	1	2	3	4	5
.	I care about people's feelings.	1	2	3	4	5
.	I ask lots of why questions.	1	2	3	4	5
.	I can guess how I might feel in a new place.	1	2	3	4	5
.	I can think of many ways to solve my problems.	1	2	3	4	5
.	My mistakes get me in trouble.	1	2	3	4	5
.	I choose what I will do next.	1	2	3	4	5
.	I wait for people to finish before I talk.	1	2	3	4	5
.	I know what happiness feels like.	1	2	3	4	5
.	I do what friends say.	1	2	3	4	5
.	I hurt people's feelings.	1	2	3	4	5
.	I am one of the leaders.	1	2	3	4	5
.	I calm myself down when I'm upset.	1	2	3	4	5
.	I keep going when I'm bored.	1	2	3	4	5
.	I get lots of choices.	1	2	3	4	5
.	I call people names when I'm upset.	1	2	3	4	5
.	I try until I get it right.	1	2	3	4	5
.	The way I do things works.	1	2	3	4	5
.	I keep my feelings to myself.	1	2	3	4	5
.	I build good habits.	1	2	3	4	5
.	If people bug me, I talk to them about it.	1	2	3	4	5
.	I finish tasks without reminders.	1	2	3	4	5

continue on the next page ...

Six Seconds Emotional Intelligence Assessment for Youth
SEI-YV Survey

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We want to make sure you don't lose this page.

st few statements are about your life as it is at the moment. Answer them in the same way as before.

		Almost Never	Seldom	Some-times	Often	Almost Always
1.	I get good grades.	1	2	3	4	5
2.	I like the choices I make.	1	2	3	4	5
3.	I try to avoid junk food.	1	2	3	4	5
4.	My teachers praise me.	1	2	3	4	5
5.	I can count on my family.	1	2	3	4	5
6.	I live for excitement.	1	2	3	4	5
7.	I have a variety of interests.	1	2	3	4	5
8.	I want to be more like someone I know.	1	2	3	4	5
9.	I eat healthier than my friends.	1	2	3	4	5
10.	I get along with my friends.	1	2	3	4	5
11.	My family praises me.	1	2	3	4	5
12.	I say whatever's in my mind.	1	2	3	4	5
13.	I am good at sports.	1	2	3	4	5
14.	I like to exercise.	1	2	3	4	5
15.	Adults like me.	1	2	3	4	5
16.	Life is a lot of fun.	1	2	3	4	5
17.	I avoid things that are tough.	1	2	3	4	5
18.	I finish my work before relaxing.	1	2	3	4	5
19.	I am popular.	1	2	3	4	5
20.	People pick on me.	1	2	3	4	5
21.	School isn't any fun for me.	1	2	3	4	5
22.	I like myself a lot.	1	2	3	4	5
23.	I do well at school.	1	2	3	4	5
24.	I have saved up money.	1	2	3	4	5
25.	I solve my battles with people.	1	2	3	4	5

If you have any other thoughts or feelings, please write them here:

You are done! Thank you.

Wait for further instructions. To tally your scores when told, look at the back of page 1 for Step 1 of 7.

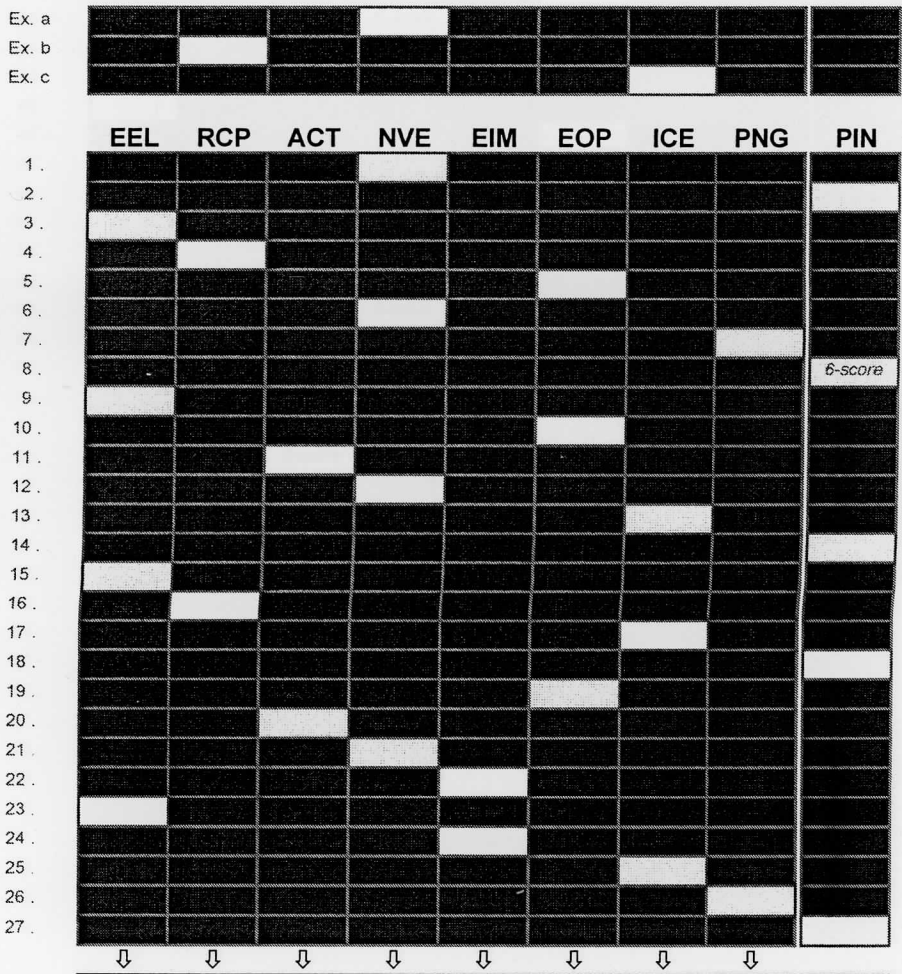
Six Seconds Emotional Intelligence Assessment for Youth
SEI-YV Scoring

sixseconds

1. After the survey, when told, fold your survey page out and back so that the right side of the dotted line faces the back page along the corresponding rows of blocks.

2. Copy each circled number into the open box to the right. Use the three examples to practise. Then do the same for all the statements that follow.

3. For the boxes that read '6-score', subtract your score from 6 and write the answer. Example: If your score is 2, you calculate 6-2 and write down 4 in the box.



eck whether you copied the scores over correctly.

the scores of each column.

go to back page 2 …

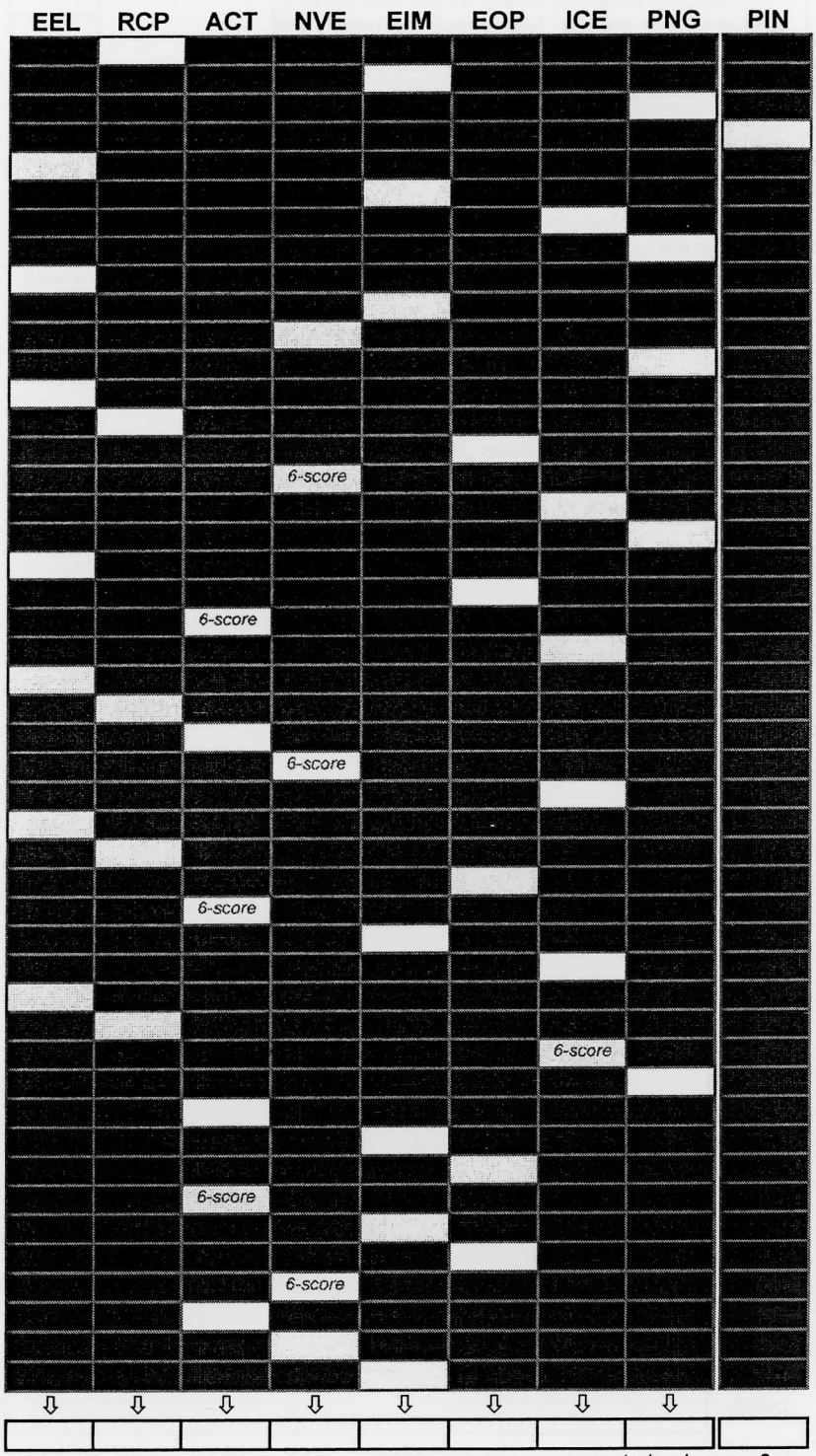
Survey design by epsy consultancy

Six Seconds Emotional Intelligence Assessment for Youth
SEI-YV Scoring

sixseconds

2. Again, copy each circled number into the open box to the right.

3. For the boxes that read '6-score', subtract your score from 6 and write the answer. Example: If your score is 3, you calculate 6-3 and write down 3 in the box.



heck whether you copied the scores over correctly.

the scores of each column.

go to back page 3 …

Survey design by epsy consultancy

Six Seconds Emotional Intelligence Assessment for Youth
SEI-YV Scoring

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2. Again, copy each circled number into the open box to the right.

3. For the boxes that read '6-score', subtract your score from 6. Example: If your score is 3, calculate 6-3 and write down 3 in the box.

heck whether you copied the below scores correctly.

⇩

1.	
2.	
3.	
4.	
5.	
6.	6-score
7.	
8.	6-score
9.	
10.	
11.	
12.	6-score
13.	
14.	
15.	
16.	
17.	6-score
18.	
19.	
20.	6-score
21.	6-score
22.	
23.	
24.	
25.	

4. Next, add the 25 scores and write the total into the dotted box below right. Multiply the subtotal by 4 to calculate your Check Score.

Once you've completed Step 4, fold open this page. You are now ready to put it all together. Continue with Steps 5-7 below.

5. Copy your two rows of totalled scores from the previous back pages to the boxes on the right-hand-side.

6. Add the two scores for each of the columns and write the totals in the dotted boxes.

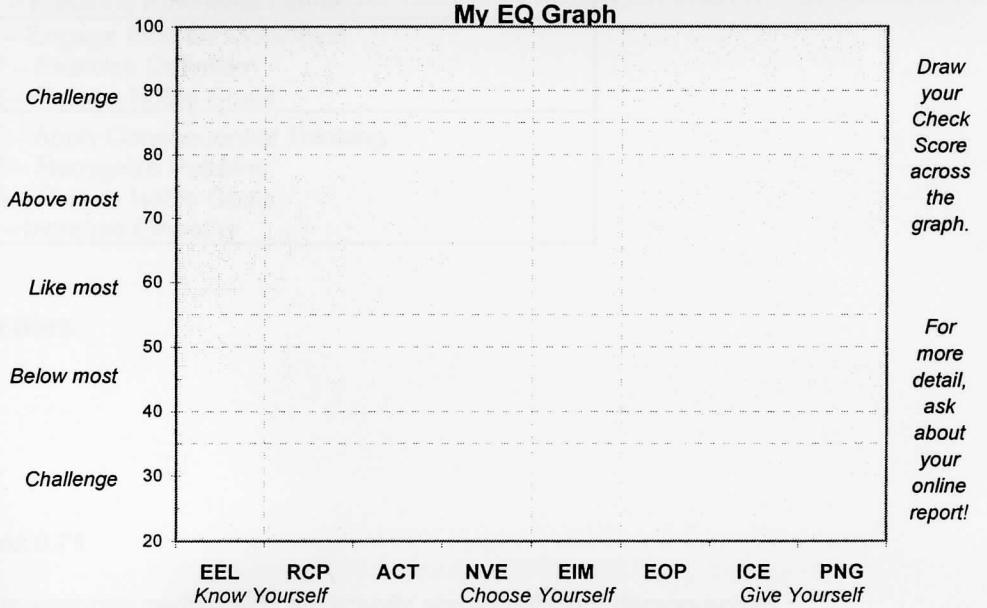
7. Use a calculator to do the final calculations. Example: For EEL, divide your subtotal by 11 and multiply by 20. Round your answers to the nearest whole number (also called an integer).

Subtotal ⇦ *Divide by 5 and muliply by 4* ⇨ **Check Score**

ck Score tells you a little bit about are doing in life. You can use it as eter to compare your EQ graph with are doing in everyday life.

	EEL	RCP	ACT	NVE	EIM	EOP	ICE	PNG	PIN
Back of p.1 ⇨									
Back of p.2 ⇨									
Subtotal									
Divide by	11	7	8	9	9	9	9	7	6
and multiply by	20	20	20	20	20	20	20	20	20

My EQ Graph



Draw your Check Score across the graph.

For more detail, ask about your online report!

understand your EQ graph:

urself

y attention to and talk about my feelings

ee how I usually react in the same way whether this works for me

ourself

nderstand how my feelings influence me o things and be careful with them

arn how to handle feelings, especially strong ones

on my own feelings rather than those her people

elieve that I have choices and I feel eful

rself

gentle with other people's feelings

e my feelings to extend kindness and vice to others

If your PIN score > 90, your graph describe your EQ accurately.

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End

ePsy consultancy

SEI-YV V2.0 Psychometrics

Validity

n = 2.697

- Factorial structure found supportive of multi-dimensional scope (eight competencies within three K-C-G pursuits)

- Early indication of excellent prediction of self-reported life barometers (concurrent validity)

  - Overall – %R2 = 50.22% (preliminary)

  - Good health – %R2 = 21.78%
  - Relationship quality – %R2 = 37.76% (preliminary)
  - Life satisfaction – %R2 = 54.53%
  - Personal achievement – %R2 = 42.03%
  - Self-efficacy – %R2 = 13.01% (preliminary)

Most important EQ scales contributing to each outcome:

Barometer	Most Significant EQ Contributors
Good Health	EIM – Engage Intrinsic Motivation PNG – Pursue Noble Goals EEL – Enhance Emotional Literacy
Relationship Quality	PNG – Pursue Noble Goals EOP – Exercise Optimism ACT – Apply Consequential Thinking
Life Satisfaction	EOP – Exercise Optimism PNG – Pursue Noble Goals EEL – Enhance Emotional Literacy
Personal Achievement	EIM – Engage Intrinsic Motivation EOP – Exercise Optimism PNG – Pursue Noble Goals
Self-Efficacy	ACT – Apply Consequential Thinking RCP – Recognize Patterns PNG – Pursue Noble Goals ICE – Increase Empathy

Associations between scales

- Three EQ pursuits (K-C-G)
  - 0.71 – 0.77

- Eight EQ competencies
  - On average 0.55
  - Ranging between 0.43 and 0.71

The three pursuits and eight competencies performed consistently across different demographics

www.epsyconsultancy.com, Toronto
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1.815.550.1422 fax

Reliability

- Internal consistency (Cronbach's coefficient alpha) and mean scale score
  - EEL – 0.77 11 items 3.52 (out of 5)
  - RCP – 0.67 7 items 3.59
  - ACT – 0.65 8 items 3.43
  - NVE – 0.67 9 items 3.23
  - EIM – 0.80 9 items 3.55
  - EOP – 0.77 8 items 3.39
  - ICE – 0.73 9 items 3.60
  - PNG – 0.73 7 items 3.39
  - PIN – 0.76 6 items 3.59

Scale (score range 20-100)	Mean	SD	Skewness	Kurtosis
TOTEQ raw	69.67	9.19	0.181	0.088
KNOW raw	71.09	10.37	0.205	0.036
CHSE raw	68.00	9.15	0.181	0.096
GIVE raw	69.93	10.53	0.208	0.089
EEL raw	70.42	11.21	0.221	0.025
RCP raw	71.76	11.02	0.217	0.043
ACT raw	68.56	10.30	0.203	0.049
NVE raw	64.55	11.13	0.220	-0.013
EIM raw	71.04	11.89	0.235	0.044
EOP raw	67.85	12.17	0.240	-0.006
ICE raw	72.01	10.46	0.206	0.059
PNG raw	67.86	12.43	0.245	0.066
PIN raw	71.74	12.00	0.237	-0.017

Validity indices

- Positive impression
  - Flagged at 1SD; invalidated at 2SD (SD = 15)
- General frame of mind
  - I feel great; I think positively; I am in a good mood
- Number of missing items
  - Minimum 94% completion (max 6 missing items) is required
- Response inconsistency
  - 5 item pairs; mean IC = 0.68; IC > 5 is flagged
  - Moderate sensitivity to age – younger youth are less consistent
- No gender & age differences
  - Girls score moderately higher than boys in NVE and ICE
- Score differences are at most 5 points (Cohen's d < 0.40)

Credibility of the norm group

- n = 2,700+ and growing
- Drawn from across the globe
  - Dominance of Asia and North-America
- Male and female youth
- Representation of age & age group
  - Mean age = 13.8 years
- Multiple ethnicities
- Variety in socio-economic sectors
- Rigorous data verification processes were followed
- Outlier response styles were eliminated
  - Extremely positive/negative ± 2SD from the mean
  - Those who were more pos/neg than 98% of the norm group
- Data were weighed to produce fair standardization statistics
  - Gender x Age category x Country
  - 2 x 4 x 4; 32 categories in all

Six Seconds
Emotional Intelligence Assessment

SEI-YV
Youth Report

Published by

Eugene Example

ID number:	9999999
Date created:	July 13, 2008
Time completed:	00:23:47
Age:	13
Gender:	Female

Confidential

www.6seconds.org
1.650.685.9885 tel.
youth@6seconds.org
1.650.685.9880 fax

Value of your Report

This report provides a graphical display and description of the youth's emotional intelligence, in comparison to his/her personal perception of general performance in life by way of specific barometers. It gives information about how this youth typically deals with daily challenges and demands in life, and offers suggestions to further develop these on his/her way to become a well-rounded person.

The report is intended for both the youth and for adults who play a significant role in the youth's life. To facilitate this, throughout the report we use two symbols:

First description:

Comments made next to the bell
offer a concrete explanation of the concepts in simple terms.

Supportive description:

Comments made next to the clock
expand somewhat on the first description in a slightly more abstract way,
offering an alternative perspective and stimulate further thought.

The SEI-YV assessment that this youth completed recently, resulted in a self-report of his/her psycho-social development. It provides an initial impression of how the youth views his/her social and emotional abilities on a daily basis.

The scores are compared against those of a large prescribed sample that is continually updated to ensure a fair and realistic basis for comparison. The scores are reflective of the young person's previous educational and environmental experiences, and predictive of personal achievement, life quality, relationship satisfaction, good health, and self-efficacy.

The Concept of Emotional Intelligence

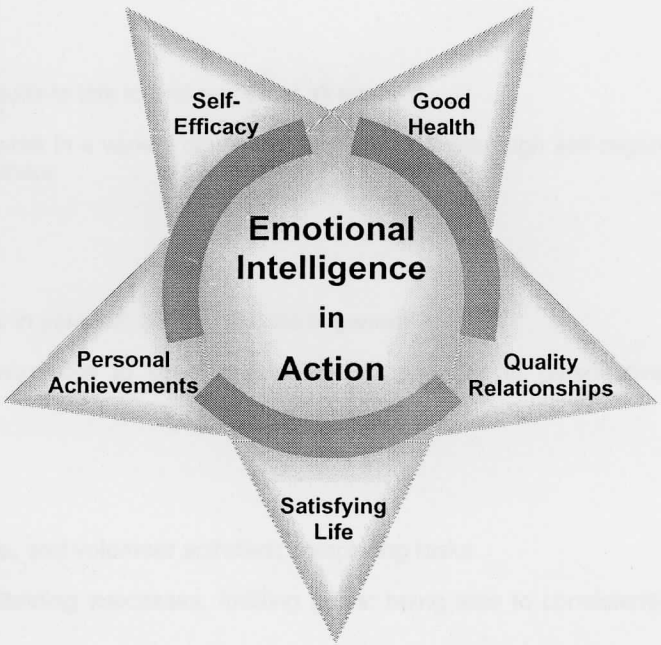
Before you jump into the assessment results, briefly consider what emotional intelligence is and why it is important. During the assessment you provided some ideas, and based on our own research and learning, we will share with you some of our own.

What is Emotional Intelligence?

You said that emotional intelligence is ... **your emotions and how well you handle them. Crying smarts.**

By comparison, Six Seconds says that emotional intelligence (also called EI) is being smart with feelings. This means paying attention to emotions and understanding them; then using that insight to make the best possible decisions. Emotions are sources of information about you and about others – your emotional intelligence lets you use that information in a superb way.

When we measure emotional intelligence and get a score, it is expressed as an Emotional Quotient, or EQ.



Why is EQ Important?

Six Seconds says that emotional intelligence is important because it provides a good foundation for feeling healthy, having quality relationships, being satisfied with life, having various personal achievements, and exercising self-efficacy. In short, good emotional intelligence capability enables you to thrive in life.

In addition, you said that emotional intelligence is important because ... **without it, you're not intelligent. You should know how to control it, and why, and because if you get mad too easy, not too many people would like you. If you control your anger, you will have more friends and maybe do a better job.**

Against this background you are now ready to look at the results of your assessment.

Taking Stock on Your Life

It is helpful to gauge how you are doing now so you can set goals for the future. In particular, we are looking at five different barometers that tell you how you are doing in life at the moment. A barometer is an indicator or a measure that you can use independently or in combination when taking stock on your life.

1. GH – Good Health

- Eating healthy food, being active, and feeling fit
- Valuing nutrition, feeling energized; being able to participate physically and mentally

2. RQ – Relationship Quality

- Feeling that you have friends and adults to talk to and rely on at all times
- Actively participating in a social network in a variety of ways; being able to foster high self-regard through constructive relations with others

3. LS – Life Satisfaction

- Feeling happy overall and finding joy in yourself, others, and life in general
- Feeling content and balanced; being able to keep events and experiences in perspective, whether challenging or successful

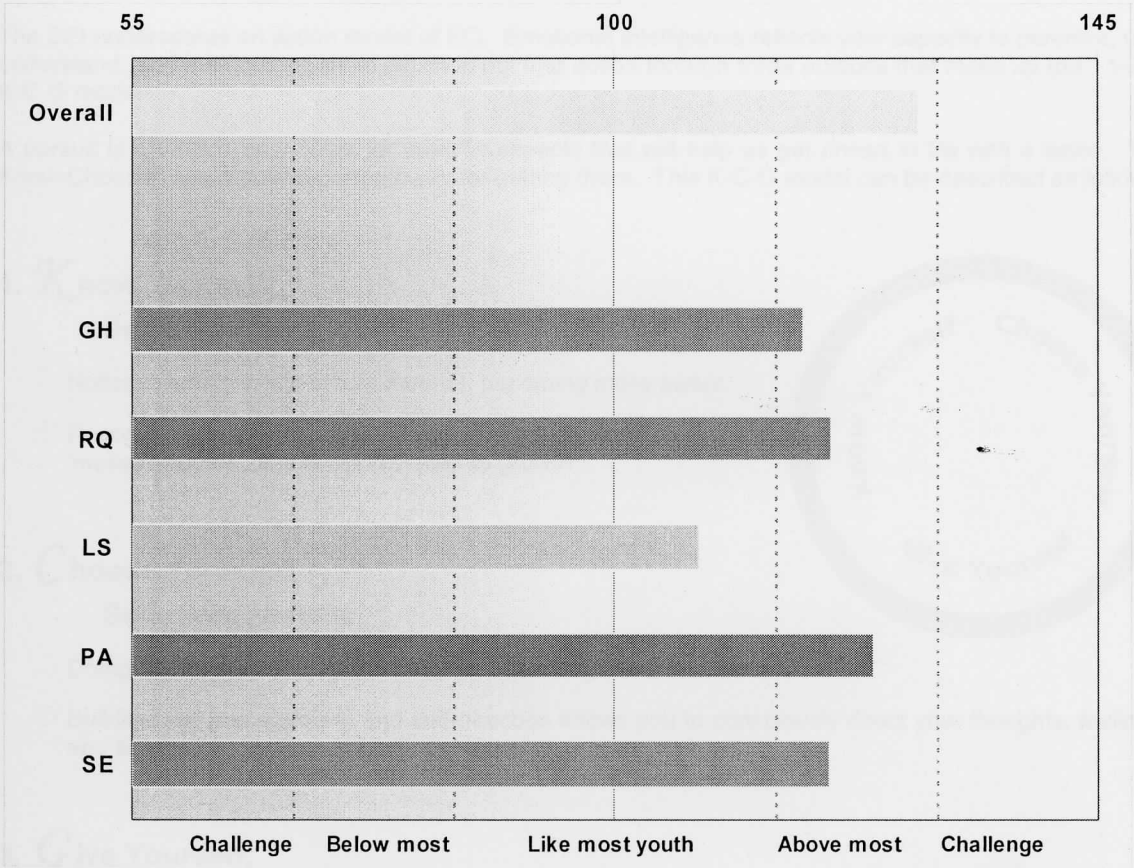
4. PA – Personal Achievement

- Doing well in sports, studies, hobbies, and volunteer activities; completing tasks
- Being diligent and conscientious; attaining successes, fulfilling goals; being able to consistently accomplish objectives

5. SE – Self-Efficacy

- Doing things in moderation and thinking before you act; feeling in charge of yourself
- Delaying gratification, suspending indulgence, channeling personal delight; being able to resist or delay strong feelings, exercise restraint, and control temper

Graphing Your Barometers of Life



GH – Good Health **RQ** – Relationship Quality **LS** – Life Satisfaction **PA** – Personal Achievement **SE** – Self-Efficacy
Overall – All the life barometers together

Tips for Reading your Barometer Graph

The average score for the barometers of life is set at 100 (the solid vertical line in the middle of the graph) with the graph drawn to stretch in 15-point intervals to either side of 100. Just like a bell shape, most youth (± 70%) score within the first two dotted lines around 100. Increasingly fewer people score away from the midline.

Bars lying in the area of 'Above most' are desirable, together with a balance between the five different barometers. An extremely high (or low) score may be seen as a challenge for you. The five barometers displayed above are impacted by your EQ (profiled next). Research shows that a strong and balanced EQ profile provides a good foundation for feeling healthy, having quality relationships, being satisfied with life, having various personal achievements, and exercising self-efficacy. The individual EQ profile will help you understand why certain aspects of life feel easy and why others are a challenge. Your scores show what you can do more of, or even less of in making the most of your life journey.

The Pursuits of Emotional Intelligence

The SEI underscores an action model of EQ. Emotional intelligence reflects your capacity to perceive, use, understand, and manage emotion, which is put into action through three pursuits that make up the 1-2-3, K-C-G model.

A pursuit is a search or a quest for specific aspects that will help us get ahead in life with a smile. The Know-Choose-Give model is our pathway for getting there. This K-C-G model can be described as follows:

1. *K*now Yourself:

Self-awareness

- Noticing what you do, in other words, becoming more aware
- Recognizing patterns and feelings lets you understand what 'makes you tick', and is the first step to growth

2. *C*hoose Yourself:

Self-management

- Doing what you mean, in other words, becoming more intentional
- Building self-management and self-direction allows you to consciously direct your thoughts, feelings, and actions (versus reacting unconsciously)

3. *G*ive Yourself:

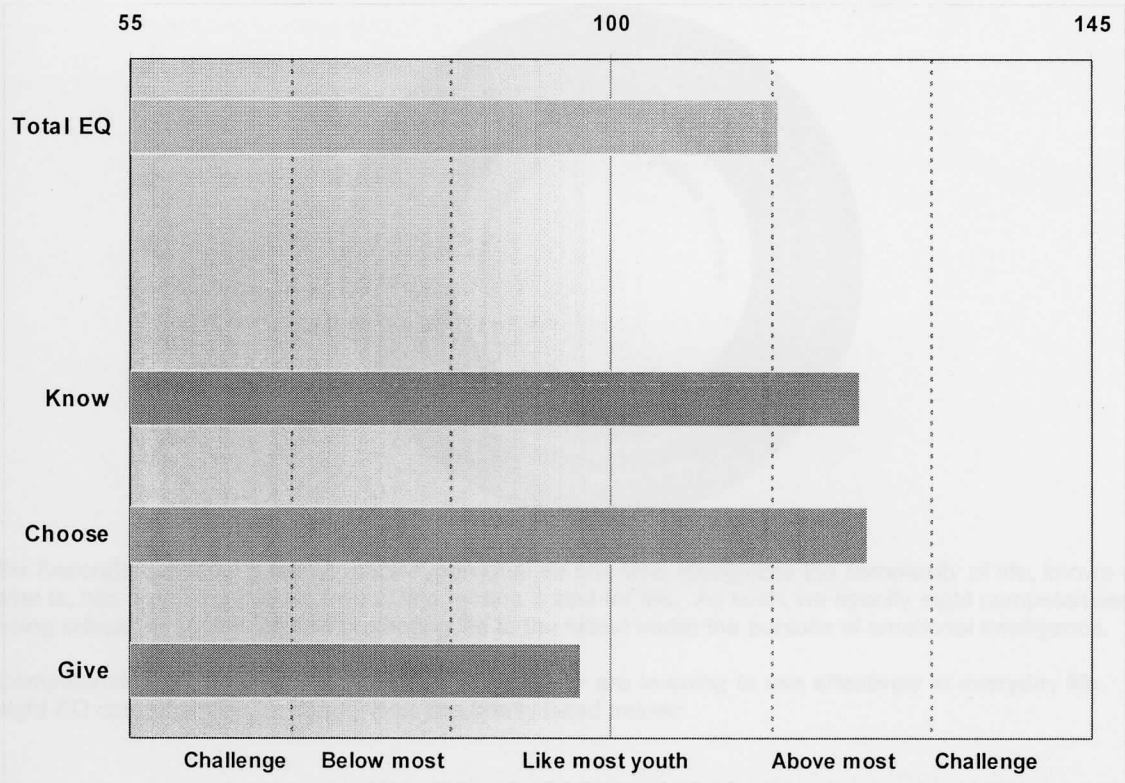
Self-direction

- Doing it for a reason, in other words, becoming more purposeful
- Aligning your daily choices with your larger sense of purpose unlocks your full power and potential. It comes from using empathy and principled decision-making to increase wisdom

Tip for Remembering the K-C-G Model

Notice how each pursuit is associated with a specific color. This will help you recognize the different parts of the K-C-G model.

Your Overview Emotional Intelligence Profile



Know – Know Yourself **Choose** – Choose Yourself **Give** – Give Yourself **Total EQ** – K-C-G together

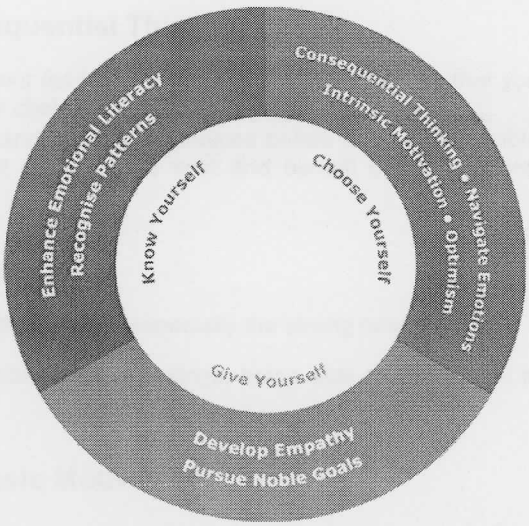
Tips for Reading your Overview Graph

The average score for emotional intelligence performance is set at 100 (the solid vertical line in the middle of the graph) with the graph drawn to stretch in 15-point intervals to either side of 100. Just like a bell shape, most youth (±70%) score within the first two dotted lines around 100. Increasingly fewer people score away from the midline.

Bars lying in the area of 'Above most' are desirable, together with a balance between the three different pursuits. An extremely high (or low) score may be seen as a challenge for you.

1. Assess where your Total EQ lies on the horizontal axis. Is this high? Is this low? Is this too high or too low?
2. Is the score for *Know Yourself* higher than the scores for *Choose Yourself* or *Give Yourself*? What is the balance between K-C-G?
3. Is your profile what you expected? Why, or why not?

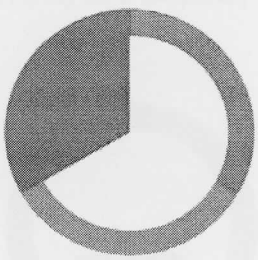
The Eight Emotional Intelligence Competencies



Six Seconds defines a healthy, mature individual as one who recognizes the complexity of life, knows who s/he is, has a defined path to follow, and retains a zest for life. As such, we specify eight competencies as being critical for sustaining and promoting life to the fullest under the pursuits of emotional intelligence.

Competencies are emotional smarts that you have or are learning to use effectively in everyday life. The eight EQ competencies, or capabilities, are briefly listed below:

Know Yourself: Self-awareness



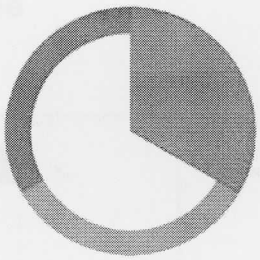
1. EEL – Enhance Emotional Literacy

- Paying attention to and talking about your own feelings
- Recognizing and appropriately expressing emotion; being able to identify and interpret multiple and conflicting emotions

2. RCP – Recognize Patterns

- Seeing how you usually react in the same way, and whether this habit works for you or not
- Identifying reactions and choices; being able to identify both positive and negative habits, and/or repetitive behaviors

Choose Yourself: Self-management



3. ACT – Apply Consequential Thinking

- Understanding how your feelings influence you to do things so that you are careful about your choices
- Evaluating the costs and benefits of choices before acting; being able to assign weight and evaluate the cost and benefit of choices and actions

4. NVE – Navigate Emotions

- Learning how to handle feelings (especially the strong ones)
- Becoming skilled at transforming feelings; being able to choose an appropriate feeling or mood based on the context

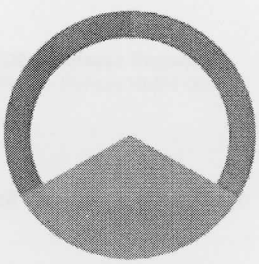
5. EIM – Engage Intrinsic Motivation

- Responding and acting on your own feelings rather than those of other people
- Building internal energy and drive; being able to establish and move towards goals based on internal rewards

6. EOP – Exercise Optimism

- Believing that you have choices and feeling hopeful
- Identifying multiple options for changing the future; being able to explain adversity as a temporary and an isolated situation that can be changed with personal effort

Give Yourself: Self-direction



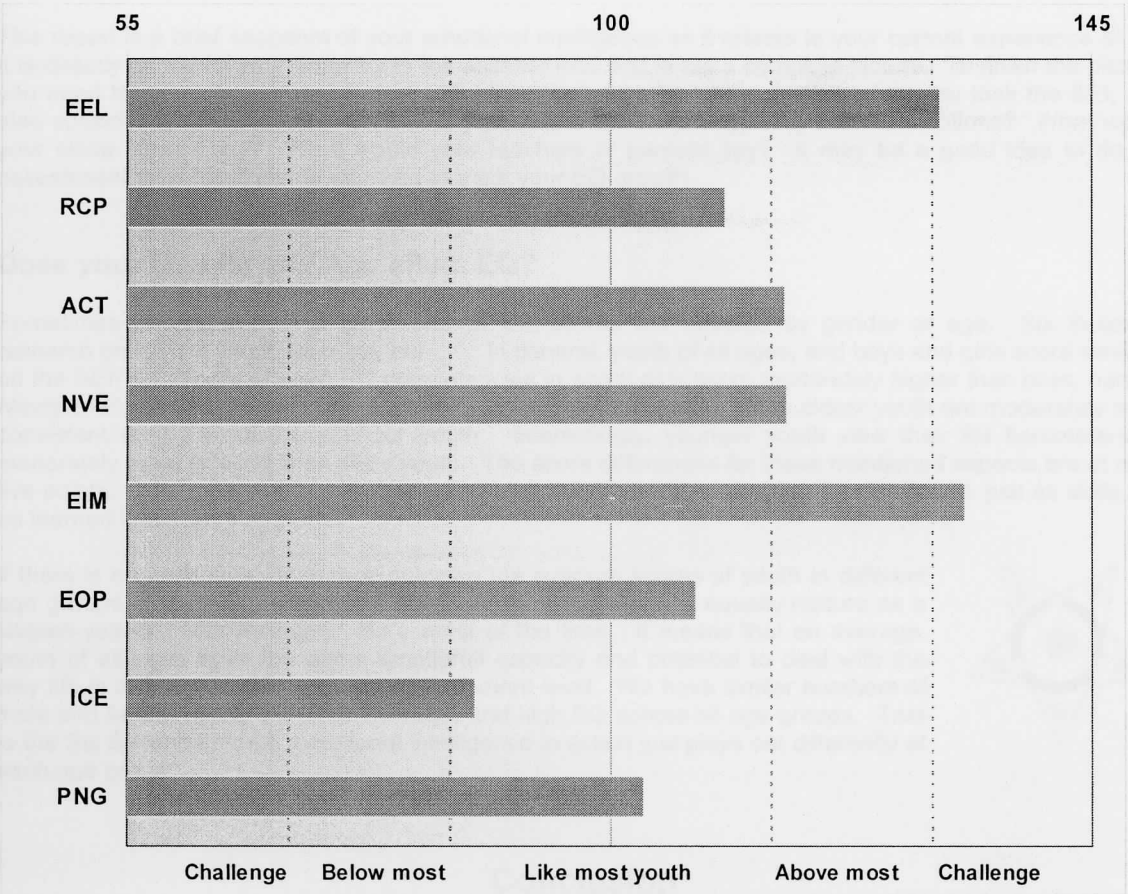
7. ICE – Increase Empathy

- Being gentle with other people's feelings
- Responding appropriately to others' feelings; being able to feel concern that comes from imagining the plight of another person

8. PNG – Pursue Noble Goals

- Using your feelings to extend kindness and service to others
- Aligning daily choices with principles and purpose; being able to extend kindness and service to others, such as friends, family, the community, and strangers, and/or being able to participate regularly in pro-social acts, such as sharing, cooperating, and helping without expecting personal benefit or reward

Your Detailed Emotional Intelligence Profile



EEL – Enhance Emotional Literacy **ACT** – Apply Consequential Thinking **NVE** – Navigate Emotions **ICE** – Increase Empathy
RCP – Recognize Patterns **EIM** – Enhance Intrinsic Motivation **EOP** – Exercise Optimism **PNG** – Pursue Noble Goals

Tips for Reading your Detailed Graph

1. Assess where your scores lie on the vertical axis. Are they all high? Are they all low? Are some high and some low? Are any extremely high or extremely low?
2. Which are the one or two strengths? Which are the one or two challenges?
3. Are the scores of *Know Yourself* higher than those in *Choose Yourself* or in *Give Yourself*? What is the balance between K-C-G?
4. Is there one distinctly high score in each of K-C-G? What is the balance in scores between each of the K-C-G?
5. Is your profile what you expected? Why, or why not?

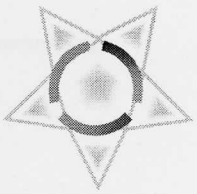
How believable are your scores?

This report is a brief snapshot of your emotional intelligence as it relates to your current experience of life. It is directly based on your answers to the assessment, and is not a complete picture. To finish the picture, you need to think about your level of self-awareness, how you were feeling when you took the SEI, and also consider what else you know about yourself. How do you typically handle emotions? What would your close friends say? What would your teachers or parents say? It may be a good idea to do the assessment after regular time intervals to track your EQ growth.

Does your Gender and Age affect EQ?

Sometimes people wonder if barometer or EQ scores are affected by gender or age. Six Seconds' research on EQ for youth says "no, but ...". In general, youth of all ages, and boys and girls score similarly on the SEI-YV. There are two EQ competencies in which girls score moderately higher than boys, namely *Navigate Emotions* and *Increase Empathy*. In addition, the scores of the oldest youth are moderately more consistent than that of the younger youth. Interestingly, younger youth view their life barometers as moderately more positive than older youth. The score differences for these mentioned aspects are at most five points. It is important to remember that all the EQ competencies can be developed, just as skills can be learned if you work at them.

If there is no noticeable difference between the average scores of youth in different age groups, does this mean that a seven-year-old individual is equally mature as a sixteen-year-old with feelings? No – most of the time. It means that on average, youth of all ages have the same emotional capacity and potential to deal with the way life is at their specific age and development level. We have similar numbers of male and female youth with low, average, and high EQ across all age groups. True to the Six Seconds model, emotional intelligence in action just plays out differently at each age group.



Conclusion

Do you want to improve your emotional intelligence? One of the best ways is to think about your strengths and how to use them more. We challenge you to think about your feelings, how you might change them, and why or when it may be helpful to do so.

The results in this report are focused on you personally. It is possible to combine the profiles of several youth into a group profile for use with classrooms, sports teams, club members, etc. Six Seconds offers supplementary materials, training and services to aid in this. For example, a *Development Guide* with comprehensive EQ competency descriptions and exercises is available separately. Please inquire for more information.

We'd love to hear how this report has been helpful and hope you will thrive in your life journey! Contact Six Seconds by phone 1.650.685.9885, or email us at youth@6seconds.org.

Anabel L Jensen, PhD
Carina Fiedeldey-Van Dijk, PhD

Counselor's Section

The results reported so far are supported by mathematical and statistical findings that are presented in this section. The Counselor's Section serves as the backbone for the above results. The next pages detail the youth's assessment results in table and numerical formats, show the impact of EQ competencies on the life barometers, and comment on the validation of the responses.

It is highly recommended that this report is viewed with a practitioner who is well versed in the K-C-G model of Six Seconds and comfortable with psychometrics to alleviate any questions that may exist. For a more comprehensive discussion of the EQ competencies with pointers for further development, please consult the supplementary *Development Guide* available separately.

General Frame of Mind

It is helpful to consider the youth's general frame of mind and feelings at the time of the assessment to fully appreciate his/her EQ profile and success in life at that time. In particular, the youth responded as follows:

I feel great	**4**
I think positively	**5**
I am in a good mood	**3**

1- Almost Never 2 – Seldom 3 – Sometimes 4 – Often 5 – Almost Always

Assessment Scores

	Overall	**128**
Barometers of Life	**Good Health**	**118**
	Relationship Quality	**120**
	Life Satisfaction	**108**
	Personal Achievement	**124**
	Self-Efficacy	**120**
	Total EQ	**116**
Pursuits	**Know Yourself**	**123**
	Choose Yourself	**124**
	Give Yourself	**97**
EQ competencies	**Enhance Emotional Literacy**	**131**
	Recognize Patterns	**111**
	Apply Consequential Thinking	**116**
	Navigate Emotions	**116**
	Engage Intrinsic Motivation	**133**
	Exercise Optimism	**108**
	Increase Empathy	**87**
	Pursue Noble Goals	**103**

Next Steps

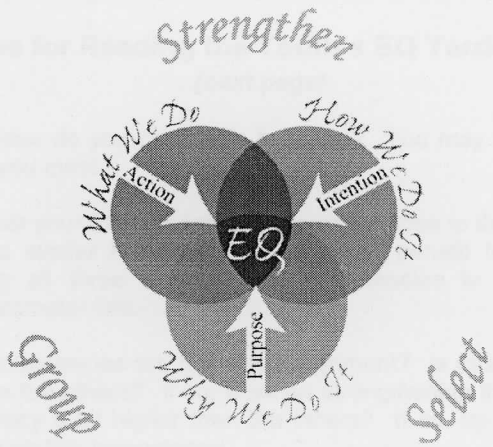
The results in this report can be used in multiple ways. Two natural steps are offered below – there are many more. At the base one can choose to focus on the EQ profile only, on the barometers profile only, or by putting the two together for deeper insight and learning opportunities. Choose a next step that is most appropriate for the unique situation of the youth.

1. Focus on EQ

As a first application and entry step, one may choose to focus on the EQ scores that are the highest (strengths that appear to help the youth thrive) and lowest (challenges that can be overcome through further personal development). This may be done for the purpose of:

- Personal development
- Grouping youth with similar strengths
- Grouping youth with different strengths
- Selecting groups on the basis of specific EQ competencies
- Identifying role models
- Determining learning styles

The possibilities are as wide as one's own creativity! Use the diagram below to plot an action plan around it if desired:



Next Steps (continued)

2. Benchmarking the Life Barometers

As an intermediate or advanced step, combine the results from the life barometers with the results of the youth's EQ profile. This has been prepared in a convenient EQ Yardstick format on the next page.

While the further development of all eight EQ competencies will be beneficial to the youth, the EQ Yardstick reveals which EQ competencies, in particular order as provided in the mid-column of the table, contribute most to each of the five barometers of life. The EQ competencies were determined by statistical predictions based on the prescribed sample that was used to standardize the EQ and barometer profiles.

Choose a life barometer that is of particular importance in the particular situation of the youth. This may be tied to a:

- Personal goal
- Learning objective
- Targeted benchmark
- Shared family value

Consider ways in which the identified EQ competencies can help realize the focus of contact with the youth. Track the progress and outcome to show successes – contact Six Seconds if assistance is needed in planning this.

Use the tips below to assist the youth in reading his/her EQ Yardstick.

Tips for Reading the Youth's EQ Yardstick
(next page)

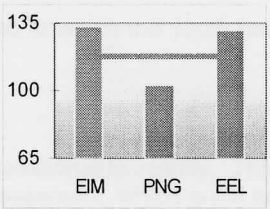
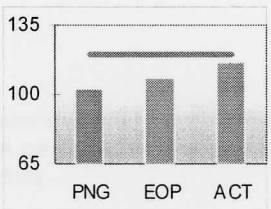
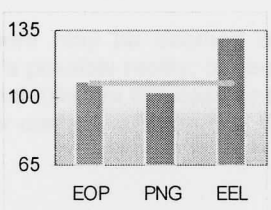
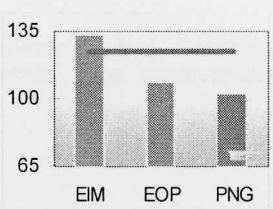
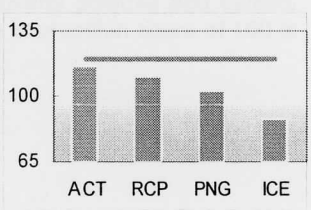
1. Which barometer do you choose to focus on? You may choose one or two that interest you most.

2. Assess whether your EQ competency scores lie close to the barometer score. Are the bars similar height? If so, you will benefit from developing or strengthening all three or four EQ competencies to lie closely to the horizontal barometer line.

3. Which EQ competencies are not in full alignment? Is this EQ competency a lot lower than the others? If so, work on strengthening this competency. Is this competency a lot higher than the others? If so, try to tone down your over-reliance on this competency.

4. Pay attention to the supporting competencies within the K-C-G model in your focus above.

EQ Yardstick

Barometer	Most Significant EQ Contributors	Effect
Good Health 118	**EIM – Engage Intrinsic Motivation** 133 **PNG – Pursue Noble Goals** 103 **EEL – Enhance Emotional Literacy** 131	
Relationship Quality 120	**PNG – Pursue Noble Goals** 103 **EOP – Exercise Optimism** 108 **ACT – Apply Consequential Thinking** 116	
Life Satisfaction 108	**EOP – Exercise Optimism** 108 **PNG – Pursue Noble Goals** 103 **EEL – Enhance Emotional Literacy** 131	
Personal Achievement 124	**EIM – Engage Intrinsic Motivation** 133 **EOP – Exercise Optimism** 108 **PNG – Pursue Noble Goals** 103	
Self-Efficacy 120	**ACT – Apply Consequential Thinking** 116 **RCP – Recognize Patterns** 111 **PNG – Pursue Noble Goals** 103 **ICE – Increase Empathy** 87	

Credibility of the Results

Missing items

To enhance the credibility of the results, the average number of items is monitored to which the youth has not provided a response for whatever reason.

Number of missing items **0**

If the number of missing items exceeds 6, the results above may be deemed of questionable validity. This is consistent with a 94% completion of all 94 Likert scale statements in the SEI assessment, which is set as the minimum requirement for the validity of the results.

Response inconsistency

Six Seconds combats possible random responding (i.e., completing the assessment without reading the items) through ten items in the survey that are paired based on similar wording. A person with reasonable self-knowledge should answer these item pairs with ratings that lie close to each other.

Average response difference between item pairs **3**

If the response inconsistency score is higher than 5, the results reported here may be deemed of questionable validity. This means that random responding should be explored as a possible reality, or else the youth may not have sufficient self-knowledge to have answered the survey truthfully. In this case one might choose to ask an individual who knows the youth very well and has regular contact with him/her, to complete the assessment on behalf of the youth.

Positive impression

The assessment is sensitive towards an impression that the graphed profiles are overly positive. This may occur for a multitude of reasons, for example, test apprehension, social desirability, high achievement orientation, a life coping strategy, and others.

Standardized positive impression score **113**

The degree to which an inflated profile may be evident is compared with the likelihood of this occurring in a large, prescribed sample. If the positive impression score exceeds 120, the graphed profiles are possibly overly positive. If the score exceeds 135, the graphed profiles are probably overly positive and invalid. This needs to be explored further before making definite conclusions. A positive impression score of 100 is considered to be average.

Youth's Unedited Comments from the Assessment

I would like to do well, but don't exactly know how to do this. Nobody sees what I can do.

Cautionary Remark

The SEI Emotional Intelligence Assessment for Youth was not developed for the direct purpose of detecting pathology. Any such interpretations made from the findings in this report should be verified with other means of identification. The user is encouraged to use this report in combination with other sources of comparative information.

The report provides a visual display of an individual's current level of emotional intelligence based on the Six Seconds model, and how this compares with five barometers of life success. These serve as a useful guideline for an array of applications that the youth, counselor, teacher, or parents can choose to utilize.

More from Six Seconds

Other report options and supplements are available from Six Seconds. These are:

EQ for youth and families

SEI-YV Individual Summary Report (no additional assessment required)
SEI-YV Perspective Report (Youth EQ from the perspective of an adult who knows the youth well)
SEI-YV Group Report (no additional assessment required, but needs at least 3 youth to be recognized as a group)
One-to-One EQ Coaching; EQ for Families Curriculum; SEI-YV Development Guide

EQ for adults

SEI Strengths Report; SEI Leadership Report; SEI Development Report
SEI-360; SEI Group Report; SEI Competency Modeling Group Report
EQ Leadership Tele-class; One-to-One EQ Coaching

For climate and morale

Organizational Vital Signs (OVS) for the workplace
Assessment of School Culture (ASC) for youth school and sport teams

For coaching

EQ Action Log
EQ Learning Journal

For training

Emotional Literacy Museum
Sneetch Marbles Activity
Choose or Loose Cards
Empathy Cards; Selling with EQ
Self-Science, EQ Leader Curriculum
Inside Path to Change Curriculum

APPENDIX B

Linguistic Modifications to Items

Table 6

Modifications Made to Items' Linguistic Content to Improve Comprehensibility

Items	Modifications Made	Reasons
#51	Replaced " make sense" with "are logical"	"Make sense" is in a way an idiomatic expression which is not present in the Lebanese language, and students were taking it literarily.
#62	Kept intact and just added explanation (what they tell me to do)	Students were at first thinking that they apply whatever anyone talks about regardless if they were addressed or not
#11	Replaced "admit" with "say it"	Students didn't know the meaning of "admit" or "confess"
#68	Kept intact and just added explanation(bad to names)	"Calling names" is in a way an idiomatic expression which is not present in the Lebanese language, and students were taking it literarily and not realizing that it had a negative connotation.
#6	Replaced "fists" with "hitting"	Students didn't know the meaning of "fists". It's not commonly used.
#53	Kept intact and just added between parenthesis explanation (exaggerate)	"Stretch the truth" is in a way an idiomatic expression which is not present in the Lebanese language.
#73	Replaced "bug" with "disturb".	"bug" is a slang word which Lebanese students are not familiar with.
#74	Replaced "tasks" with "what I have to do"	Students didn't know the meaning of "tasks".
#26	Replaced "volunteer" with "offer".	Students didn't know the meaning of "volunteer".

APPENDIX C

Structural Modifications to Items and Version of Test Used in the Research

The researcher made just structural modifications to other items in the test. They were items 1,2,9,14,19, 22,24,29,30,34,35,41,56,59,66,67,70. They are listed below in their original and modified format.

1. I solve my fights with friends……. If I fought with my friends, I try to solve the problem.

2. I am good…… I am a good person.

9. I can see whether people are amazed or surprised…….. I can see whether people are really surprised or not.

14. I don't break rules…….. I follow the rules.

19. I can cheer myself up…….. If I was sad, I can do things to make myself feel better.

22. I will practice until I get perfect…….. I keep on practicing until I become perfect.

24. I know how I learn best…….. I know which is the best way I learn in.

29. I finish what I start…….... If I started something, I keep on working till I finish it.

30. My friends look up to me……..My friends respect me.

34. I share my things to help people feel better…… If somebody is sad, I share my things with him to make him feel better.

35. I take people's feelings into account…… I take people's feelings into consideration.

41. I can tell by people's faces what they're feeling..... When I look at people's faces, I know what they're feeling.

56. I can guess how I might feel in a new place. .....Before I go to a new place, I can know how I will feel there.

59. I choose what I will do next..... I decide what I want to do next.

66. I keep going when I'm bored..... Even if I get bored, I keep on working till I finish.

67. I get lots of choices. .....I have many options to choose from in life.

70. The way I do things works..... My way of doing things works well for me.

ll name: _____ _____ Today's date: ___/___/_____

nder: Male ___ Female___ Age: ___ years

ad each sentence and choose the answer that best describes you. Choose only ONE answer for each sentence and CIRCLE the mber that matches your answer. This is not a test. There are no good or bad answers. Be as honest as you can – your first thought he best.

	Almost Never	Seldom	Some-times	Often	Almost Always
If I fought with my friends, I try to solve the problem.	1	2	3	4	5
I am a good person.	1	2	3	4	5
I can say what I feel.	1	2	3	4	5
I understand what makes me happy.	1	2	3	4	5
I am creative.	1	2	3	4	5
I solve problems by talking not hitting.	1	2	3	4	5
I can help with world problems.	1	2	3	4	5
I am bad.	1	2	3	4	5
I can see whether people are really surprised or not.	1	2	3	4	5
I solve my problems.	1	2	3	4	5
I say it when I have done something wrong.	1	2	3	4	5
I share my feelings with others.	1	2	3	4	5
I feel terrible when people are sad.	1	2	3	4	5
I follow the rules.	1	2	3	4	5
I can tell adults what I am feeling.	1	2	3	4	5
I change my behavior when I need to.	1	2	3	4	5
People tell me their secrets.	1	2	3	4	5
I do what adults tell me to do.	1	2	3	4	5
If I was sad, I can do things to make myself feel better.	1	2	3	4	5
Before I do something, I think of how my family will feel.	1	2	3	4	5
I work well with others.	1	2	3	4	5
I keep on practicing until I become perfect.	1	2	3	4	5
I want to learn about myself.	1	2	3	4	5
I know which is the best way I learn in.	1	2	3	4	5
I listen carefully to my friends.	1	2	3	4	5
I offer to help.	1	2	3	4	5
I do what is right.	1	2	3	4	5
I know when I need help.	1	2	3	4	5

		Almost Never	Seldom	Some-times	Often	Almost Always
9	If I started something, I keep on working till I finish it.	1	2	3	4	5
0	My friends respect me.	1	2	3	4	5
1	I don't tell lies.	1	2	3	4	5
2	I ask for what I need.	1	2	3	4	5
3	I can change a bad habit.	1	2	3	4	5
4	If somebody is sad, I share my things with him to make him feel better.	1	2	3	4	5
5	I take people's feelings into consideration.	1	2	3	4	5
6	I have lots of words to describe how I feel.	1	2	3	4	5
7	I concentrate on what I want to do.	1	2	3	4	5
8	I want to tell people how I feel.	1	2	3	4	5
9	I make people feel safe.	1	2	3	4	5
0	I have more than one feeling at a time.	1	2	3	4	5
1	When I look at people's faces, I know what they're feeling.	1	2	3	4	5
2	Most of my wishes come true.	1	2	3	4	5
3	I hide my feelings.	1	2	3	4	5
4	I can calm down an angry friend.	1	2	3	4	5
5	I give up what I want to help the group.	1	2	3	4	5
6	I pay close attention to what people say or do.	1	2	3	4	5
7	My dreams will come true.	1	2	3	4	5
8	I do things without thinking.	1	2	3	4	5
9	People tell me I am kind.	1	2	3	4	5
0	I like using describing words (adjectives) when I write.	1	2	3	4	5
1	People behave in a way I can understand.	1	2	3	4	5
2	I learn new things from problems.	1	2	3	4	5
3	When I want something, I exaggerate.	1	2	3	4	5
4	I care about people's feelings.	1	2	3	4	5
5	I ask lots of why questions.	1	2	3	4	5
6	Before I go to a new place, I can know how I will feel there.	1	2	3	4	5
7	I can think of many ways to solve my problems.	1	2	3	4	5
8	My mistakes get me in trouble.	1	2	3	4	5
9	I decide what I want to do next.	1	2	3	4	5
0	I wait for people to finish before I talk.	1	2	3	4	5
1	I know what happiness feels like.	1	2	3	4	5
2	I do what my friends tell me to do.	1	2	3	4	5

		Almost Never	Seldom	Some-times	Often	Almost Always
3	I hurt people's feelings.	1	2	3	4	5
4	I am one of the leaders.	1	2	3	4	5
5	I calm myself down when I'm upset.	1	2	3	4	5
6	Even if I get bored, I keep on working till I finish.	1	2	3	4	5
7	I have many options to choose from in life.	1	2	3	4	5
8	I call people bad names when I'm upset.	1	2	3	4	5
9	I try until I get it right.	1	2	3	4	5
0	My way of doing things works well for me.	1	2	3	4	5
1	I keep my feelings to myself.	1	2	3	4	5
2	I try to build healthy habits.	1	2	3	4	5
3	If people disturb me, I talk to them about it.	1	2	3	4	5
4	I finish what I have to do without anyone reminding me.	1	2	3	4	5

APPENDIX D

Tables

Table 2

Internal Consistency of Some Subscales in the Pilot Studies and the actual research

Subscales	Pilot 3	Low Achievers	Mid & Low Achievers	Mid Achievers	High & Mid Achievers	High Achievers	No Unreliable Data	No Special Education	All Data
Engage Intrinsic Motivation (EIM)	.796		.644	.687	.688	.668	.627	.651	.653
Exercise Optimism (EOP)	.815	.758	. 722	.705	.719	.758	.698	.734	.735
Increase Empathy (ICE)		.739	.676	.601	.623	.675	.633	.648	.688
Activate Consequential Thought (ACT)		.627				.630			
Pursue Noble Goals (PNG)	.668	.688	.632	.610	.600		.623	.623	.624
Navigate Emotions (NVE)						.727			
Enhance Emotional literacy (EEL)	.620								
	.688								
Recognize Patterns(RCP)									
Consistency (PIN)		.738	.620	.650	.624	832		.632	.659

Note: *Cronbach's alpha > 0.5*

Table 4

Terms One & Two Correlations of Subjects, Emotional Intelligence subscales & Total Score

Q	Average. French	Average. Geography	Average Economics	Average English	Average Life	Average Term1	English Term1	French Term1	Geography Term1	Life Scien
ıbscales	Term 1 & 2	Term 1 & 2	Term 1 & 2	Term 1 & 2	Science Term 1&2					Term
ngage trinsic lotivation IM)	.207*	.185*	.240*			.164*		.211*	.163*	
xercise ptimism OP)	.174*		.244*	.172*	.183*		.181*			.163
OTAL Q Score			.250*							

Note: ***Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).*