

A Summary of - First Steps in Emotional Intelligence Technology: A Digital Diagnostic Assessment's Impact on Educator Emotional Intelligence Development

### **Chapter 1: Nature of the Study**

This chapter introduces the increasing significance that emotional intelligence (EQ) and Social-emotional learning (SEL) has become in K-12 schools in the United States due to its positive impact on students' behavior, relationships, and academic success. However, the lack of effective assessment tools has hindered its widespread implementation and long-term adoption. To address this issue, this study introduces a digital EQ assessment framework designed to measure the user's EQ skills and increase the accessibility of EQ initiatives. The study also explores integrating technology in EQ assessments to improve user experience and interaction design. EQ involves the development of emotional intelligence, encompassing aspects such as motivation, emotions, relationships, and decision-making. It is recognized as a crucial component alongside academic knowledge as a 21st-century skill. The Collaborative for Academic, Social, and Emotional Learning (CASEL) has played a key role in standardizing and promoting EQ practices, with many states in the U.S. implementing EQ competency standards based on CASEL's five core competencies. Despite the increasing importance of EQ, its adoption has significant challenges, mainly related to assessments. Existing assessment tools often need to align with the CASEL-5 competencies, making it difficult to assess social-emotional competency accurately. Only a small percentage of schools currently utilize effective EQ assessments, highlighting the need for improvements in the efficiency, efficacy, and scalability of EQ programming.

Educators are crucial in driving EQ programs, as their social-emotional competence significantly influences classroom culture and students' development. However, many teacher education programs lack sufficient training in EQ, and there is often a lack of clear vision for EQ in schools, especially at the elementary level. Though the investment in EQ has been substantial with K-12 principals, as they recognize the importance of EQ tools and resources, selecting meaningful assessment tools and implementing effective EQ assessments remain complex and costly. This has limited their widespread use. Assessments are vital for measuring the effectiveness of EQ programs, evaluating EQ skills, and tracking students' emotional intelligence growth. Educators seek assessments aligned with CASEL and standards, affordable, accessible, and easy-to-use assessments that provide well-being for their students.

For the original study, the term Social-emotional learning digital diagnostic assessment (SELDDA) was used; however, STRUT Learning rebranded the assessment, and the current version is called EQ360 (Emotional intelligence 360). The study addresses the lack of effective EQ assessment instruments aligned with CASEL-5 competencies, usability, accessibility, and validity. It introduces the Emotional Intelligence 360 (EQ360), a web-based tool that aligns with CASEL-5 and measures six core competencies, including the new sixth core competency of motivation. The study evaluates the reliability, validity, usability, and digital design of EQ360 and provides insights into developing effective digital EQ assessment tools. The study utilizes theoretical frameworks such as social cognitive theory, emotional intelligence theory, theories of measurement, and human-computer interaction theory to inform the design and integration of EQ and technology.

The scope of the study focuses on analyzing the impact of EQ360 on educators' EQ development through the employment of a quantitative quasi-experimental design. It emphasizes the importance of reliability, validity, and normalization of assessments while addressing the need for user-friendly digital tools that are aligned with the CASEL-5 model. The findings will benefit assessment developers, researchers, principals, educators, and students by improving assessment design, accessibility, and functionality.

## **Chapter 2: Literature Review**

This chapter provides research-based support for digital universal social-emotional learning assessments. It explores emotional intelligence's origins, models, and value, followed by an in-depth review of social-emotional learning, including the leading organization CASEL and its five-competency model. The chapter also discusses education assessment types, benefits and challenges, integration with technology, and popular social-emotional learning assessment tools. It evaluates solutions for enhancing EQ assessments, including education technology and human-computer interaction.

### **Literature Research Strategy**

The literature review utilized secondary data from peer-reviewed journal articles, books, and digital content. Various databases and search engines were used, including ProQuest, ERIC, Google Scholar, and JSTOR. The search keywords focused on emotional intelligence, social-emotional learning, assessments, education technology, and human-computer interaction. After filtering out irrelevant and duplicate results, 260 articles were selected for the review.

### **Emotional Intelligence/ Social-emotional Learning (EQ/ SEL)**

Emotional Intelligence (EQ) is a combination of critical skills necessary for success in daily life. They range from recognizing and managing motivation, emotions, decision-making, and behaviors. They are commonly referred to as passion, grit, perseverance, and soft skills – skills often associated with leaders and success. They are now the most essential skills for today and tomorrow's 21st-century information/ digital age. Social and Emotional Learning (SEL) are the building blocks, sequencing, and processes to develop EQ. SEL makes EQ teachable/ learnable. While EQ and SEL are slightly different, they are commonly used interchangeably. We use both the Theories of Emotional Intelligence and Social Emotional Learning along with other learning and psychological sciences to drive our Assessments, Curricula, Technologies, and Practices.

### **Emotional Intelligence**

Emotional intelligence (EQ) gained prominence in the 1990s and has been studied in various fields. While there is no consensus on its definition, popular definitions highlight the capacity to reason about emotions, recognize and manage one's own and others' feelings, and succeed in coping with environmental demands. Emotional intelligence is the awareness, regulation, and leveraging of emotions for responsible decision-making. It can be learned and developed, leading to personal success, reduced stress, and improved relationships and understanding.

### **The History of Emotional Intelligence**

Emotional intelligence has roots in ancient philosophical and psychological theories. Plato, Spinoza, and Hume discussed the influence of emotions on thought and behavior. In the early 1900s, Alfred Binet and Theodore Simon developed the first practical intelligence test, which later

led to the development of the Stanford-Binet Intelligence Scale. Thorndike introduced the concept of social awareness, and Wechsler emphasized the role of emotions in intellect. Michael Beldoch and Wayne Payne laid the foundation for the modern emotional intelligence framework, followed by the work of Salovey and Mayer, who proposed the ability model. Goleman popularized emotional intelligence with his performance model, and Bar-On introduced the competency model. These theories have shaped the field of emotional intelligence and its assessment.

### **Emotional Intelligence Models**

Three popular models of emotional intelligence include the ability model by Salovey and Mayer, the performance model by Goleman, and the competency model by Bar-On. The ability model focuses on innate intelligence and includes components like perceiving and regulating emotions. The performance model emphasizes competencies that drive leadership and performance. The competency model views emotional intelligence as a set of learnable skills. These models have contributed to understanding emotional intelligence and provided frameworks for its assessment.

### **Importance of Emotional Intelligence**

Emotional intelligence plays a crucial role in various aspects of life. It influences academic engagement, commitment, and success in schools. Emotions drive decision-making, learning, relationships, creativity, and health. Emotional intelligence is twice as important as technical skills and I.Q. combined for better performance. It is vital for dispute resolution, improving quality of life and health. Emotionally intelligent individuals have better social relations and higher empathy levels. Emotional intelligence is also essential for effective leadership, as leaders must understand and manage emotions, which impact communication and personal branding. Overall, understanding and developing emotional intelligence has significant implications for personal, academic, and professional success and for fostering positive relationships and well-being.

### **From Emotional Intelligence to Social-Emotional Learning**

Social-emotional learning (SEL) emerged in 1994 as researchers and educators focused on developing social and emotional skills in children. SEL encompasses the learning and education efforts related to emotion recognition and management. The Collaborative for Academic, Social, and Emotional Learning (CASEL) was established to promote the role of emotions in students' learning process. Meta-analyses have shown that SEL programs improve social and emotional skills, attitudes about school, academic achievement, and behavior. SEL programs tap into emotional intelligence and help address various issues that individuals and schools face.

### **Social-Emotional Learning (SEL)**

SEL is the process by which students acquire core competencies related to recognizing and managing emotions, setting goals, making responsible decisions, establishing positive relationships, and handling interpersonal situations. It integrates thinking, feeling, and behaving and contributes to academic and professional success, positive relationships, and civic engagement. Different terms often refer to SEL, including behavioral, thinking, and self-control skills. It is considered teachable and significantly impacts students' well-being and development.

### **CASEL and its Five-Competency Model**

The Collaborative for Academic, Social, and Emotional Learning (CASEL) is an international nonprofit organization that promotes SEL in schools. CASEL has developed a five-competency

model for EQ, which includes self-awareness, social awareness, self-management, relationship skills, and responsible decision-making. These competencies aim to develop students' emotional intelligence and skills necessary for positive social interactions, academic success, and personal well-being. Additionally, motivation is seen as an important component of EQ, though it is not explicitly included in CASEL's model.

### **Benefits of Emotional Intelligence**

Emotional Intelligence (EQ) benefits students, educators, and schools. EQ promotes academic success for students by helping them manage their emotions, develop motivation and focus, and improve self-regulation and attention. EQ interventions have improved students' school and classroom behavior, academic achievement, attendance, pro-social behavior, and school connectedness while reducing anxiety, depression, aggression, and disruptive conduct. EQ also has long-term effects, predicting well-being and success in early adulthood. It creates a positive classroom climate, enhances the quality of teacher instructions, and helps students effectively manage stressful situations.

### **Benefits of Emotional Intelligence for Educators**

EQ benefits educators by providing them with effective classroom management strategies, helping them cope with the stresses of their role, and improving their personal lives and stress management. EQ skills contribute to a more orderly classroom environment, better peer relationships, and improved communication. Educators with EQ competencies experience greater job satisfaction, reduced job-related stress, and fewer student-teacher conflicts. EQ training enhances educators' effectiveness in working with parents and colleagues and creates a conducive learning climate. EQ practices reduce stress and burnout among educators and contribute to teacher retention and learning continuity. In times of crisis, such as during the COVID-19 pandemic, EQ competencies help prevent compassion fatigue among educators. EQ benefits students and educators by promoting academic success, positive behavior, emotional well-being, and effective learning environments. It has become increasingly important in education curricula and is recognized as a key factor in supporting student and educator well-being and success.

### **Benefits of Emotional Intelligence in the Community**

Emotional Intelligence (EQ) significantly benefits the community. EQ equips individuals and groups with the skills, attitudes, and beliefs necessary for making healthy, ethical, caring, and responsible decisions. It helps prevent negative behaviors such as substance abuse, violence, and bullying. EQ programs have been found to reduce dropout rates and address issues like loitering, vandalism, homelessness, and poverty. Investing in EQ produces an 11-fold return on investment for the community through reduced social service and criminal justice costs, increased employment-related tax and commerce benefits, higher income, better health, and reduced involvement in criminal activities.

### **Emotional Intelligence Standards**

Many states have adopted or are considering emotional intelligence (EQ) standards to promote academic success and address emotional intelligence. CASEL's state-scan project identified 18 states incorporating EQ competencies/standards from PreK to 12th grade and eight states adopting them for PreK to early elementary. EQ standards provide a framework for developing students' self-awareness, social awareness, interpersonal skills, and decision-making abilities. Legislation

referencing EQ has been introduced in many states. Implementing effective EQ programs faces limited funding, lack of training, inadequate resources, and cultural sensitivity. Ongoing professional development, teacher preparation, and assessment tools aligned with EQ standards are recommended to support successful implementation.

### **Current Challenges in Implementing Effective EQ Programs**

Implementing effective EQ programs requires various resources, including software, funding, and comprehensive training programs for parents, children, and teachers. Insufficient prioritization, low funding, limited awareness, lack of consensus on measurements, and absence of a positive school climate hinder successful implementation. A lack of teacher training, bias towards academic achievements, and constraints imposed by curriculum and standardized testing pose additional challenges. The need for universal screening assessments of social-emotional skills and innovative digital psychometric assessments is emphasized to support EQ implementation.

### **Educational Assessment**

Educational assessments measure student achievement and progress and provide instructional guidance and accountability. Different types of assessments include diagnostic, formative, summative, and standardized. Diagnostic assessments help identify students' needs and inform instructional strategies, while formative assessments provide ongoing feedback for instructional adjustments. Summative assessments evaluate knowledge and skills at the end of instruction, and standardized tests offer uniform evaluations for comparison purposes. However, standardized tests are controversial, with concerns about overemphasis, biases, and limitations in capturing students' overall development. Assessments are vital in education, providing data-driven insights for improving instruction and meeting learning objectives.

### **Benefits of Assessments in Education**

Assessments in education have numerous benefits. They ensure the achievement of learning objectives, provide a roadmap for instructional strategies, empower students to set academic goals, increase motivation and engagement, and support differentiated learning. Assessments also offer a framework for accountability for evaluating programs, curricula, and instructional practices. They provide valuable data for improving instruction, identifying students' needs, and supporting learners with special needs. Technology has significantly impacted educational assessments, allowing for scenario-based assessments, faster data collection, and more efficient assessment systems.

### **Challenges of Assessments in Education**

Standardization of assessments may overlook students' diverse abilities and interests. Assessments can be resource-intensive, requiring time, labor, and finances. They may induce anxiety in students, affecting their performance. Assessments are not always effectively reviewed and analyzed, which limits their impact on instruction and learning.

### **The Influence of Technology on Educational Assessments**

Technology has revolutionized educational assessments by enabling scenario-based assessments, increasing reliability and validity, providing faster data collection and feedback, and streamlining the assessment process.

### **Emotional Intelligence Assessments**

Emotional Intelligence (EQ) assessments measure an individual's social-emotional competencies and provide valuable information for promoting positive educational outcomes. While EQ assessments vary in approach, target ages, and competencies assessed, they play a crucial role in developing well-rounded individuals and informing programs and policies. The Devereux Student Strengths Assessment (DESSA) is an example of an EQ assessment tool that assesses social and emotional skills, resilience, and optimistic thinking. DESSA provides reliable data for improvement, but challenges include time requirements and limitations of observational reports. Overall, assessments in education offer valuable insights into student learning and guide instruction and improvement, although challenges and limitations must be addressed to ensure their effectiveness.

### **Comparing Social-Emotional Learning Assessment Tools and the Development of EQ360**

Several social-emotional learning (SEL) assessment tools are available, each with its own strengths and limitations. The Social Skills Improvement System (SSIS) is a widely used tool that measures social skills frequency and identifies student deficits. However, it relies heavily on direct observations and can be costly. Newer versions aligned with CASEL's competencies, such as SELA and SSIS SEL, have emerged but require further research. The Delaware Social-Emotional Competency Scale (DSECS-S) is a self-report scale that assesses social-emotional competencies. While it aligns with CASEL's competencies and provides standardized assessments, it lacks related educator tools and practical validation in classroom settings. Panorama Education offers an online platform for social-emotional learning assessments that aligns with CASEL's framework. It measures various competencies and provides data analytics, but limited published research on its reliability and validity exists. Pricing and access are available at the district level. SELweb is a digital, self-administered measurement tool that assesses problem-solving, emotional recognition, regulation, and cooperation. It aligns with CASEL's competencies, demonstrates reliability and validity, and offers cost-effective pricing. However, it is important to note that each assessment has its limitations and deficiencies. These existing SEL assessments led to the development of the EQ360 tool, which aimed to address some of the deficiencies observed in the available tools. The EQ360 tool assesses and improves educators' social-emotional learning, ensuring reliability, validity, and user-friendliness.

### **Current Challenges of EQ Assessments**

The challenges in EQ assessments include a lack of familiarity with assessment frameworks and tools, negative perceptions by school principals, limited standardization and alignment with CASEL's framework, subjectivity in self-report assessments, and the shortage of reliable, scalable, and usable assessment tools. EQ360 is a digital diagnostic assessment developed by Strut Learning to address these challenges. It incorporates multiple perspectives, overcomes bias, aligns with CASEL's competencies, and provides detailed and triangulated assessment results. EQ360 offers a free-of-charge platform for personal individual users and classroom, school, and district-level packages with enhanced group management dashboards. This assessment prioritizes privacy and data confidentiality and integrates user experience design principles. Through subsequent research with varying populations, it continues to be found to have among the highest levels of reliability and validity of any academic or mainstream E.Q. assessment.

### **Education Technology**

Digital technology has become integral to education, transforming learning and teaching. Education technology encompasses many school technologies, including administrative systems, learning management systems, and various software applications. The use of technology in education has increased steadily and has been driven by access, cost-effectiveness, and the emphasis on personalized and blended learning. The goal is to integrate technology effectively into the classroom and align it with learning objectives and pedagogical strategies. Education technology models such as SAMR, TPACK, and Bloom's Digital Taxonomy provide frameworks for integrating technology and promoting higher-order thinking. Education technology offers numerous benefits, including improved engagement, interactivity, and personalization of learning. It supports diverse learners, enhances collaboration and communication skills, and prepares students for the digital world. Gamification within education technology promotes student motivation and engagement. Overall, education technology has the potential to transform traditional learning systems and improve learning outcomes.

### **Challenges of Education Technology**

The rapid technology integration in education has brought about several challenges. Increased use of technology can lead to a lack of social interaction and social development among students, affecting relationships and communication skills. It can also reduce emotional intelligence and empathy, desensitize experiences, and increase anxiety. Technology, particularly gamification and virtual reality, can create a disconnection with reality and impact coping skills. Negative behaviors such as angry outbursts and cyberbullying may be exacerbated by technology. Additional challenges include insufficient funds, concerns about student privacy, and the potential for technology to distract from traditional learning approaches. Educators should receive regular training to improve education technology, and school districts should provide support and leadership. Teachers' perceptions of technology should be positive, and students should learn appropriate online etiquette. Strategic planning should ensure technology integration aligns with academic and non-academic skills, and technology should be developmentally appropriate. Ensuring the appropriate management and use of technology, limiting screen time, and promoting social-emotional competence are all important considerations. Education technology can also significantly foster emotional intelligence (EQ) and social-emotional learning (SEL), with various technologies supporting EQ/ SEL development through virtual and physical interactions. However, there is a need for further development of technology that integrates all five SEL competencies and provides adaptive learning to individual learners' emotional competency levels.

### **Challenges for Integrating SEL and Technology**

The integration of Emotional Intelligence (EQ) and technology face several challenges. Limited awareness of EQ and its benefits, insufficient prioritization of social and emotional skills, lack of consensus on valid and reliable EQ measurements, low funding and resources, and an inadequate supply of EQ programs and products are identified as barriers to adopting EQ technologies. Teachers' discomfort with technology, concerns about screen time and social anxiety, skepticism about the appropriateness of technology for young children, and the cost and complexity of technology applications also hinder the integration of EQ and technology. However, there are opportunities to overcome these challenges by focusing on human-computer interaction (HCI) and user experience (UX) design. HCI and UX/UI design are crucial in creating user-friendly technology interfaces that enhance engagement, learning, and social-emotional competencies. By developing intuitive user interfaces, designing learner-centric assessments, and addressing user

needs, technology can be effectively integrated to support EQ and enhance the overall educational experience.

### **Chapter 3: Research Design and Method**

This chapter focuses on the research design and method used in a study evaluating a social-emotional learning assessment tool called Emotional Intelligence 360 (EQ360). The study aims to assess the reliability, validity, and usability of EQ360 and determine its impact on the social-emotional learning development of K-12 educators. The chapter explains the rationale for choosing a quantitative design, describes the participants and sampling procedure, details the data collection and analysis procedures, and discusses study limitations and ethical considerations.

#### **Research Design**

The study employed a quantitative approach to assess the reliability, validity, and usability of EQ360. The primary reason for choosing a quantitative design was to analyze EQ360's effectiveness using statistical methods. This approach allows for hypothesis testing, measuring impact and significance, and identifying demographic factors related to social-emotional learning development. The quantitative method enables replication with different populations and sample sizes and quicker data collection.

#### **Quasi-Experimental Design**

A quasi-experimental design was used in the study, similar to experimental research but without randomization. The independent variable was EQ360 as a formative instruction tool, and the dependent variable was educators' social-emotional competency. The design also assessed the reliability, validity, and usability of EQ360. Comparative analysis of other SEL assessment tools was not conducted.

#### **Population and Sample**

The study was conducted online with K-12 educators in the U.S. Convenience sampling was used, leveraging social media platforms like Facebook and LinkedIn to recruit participants. 60 English-speaking educators between 21 and 66 years old participated in the study. The sample size was determined based on feasibility and the complexities of recruitment during the COVID-19 pandemic. All participants were educators familiar with social-emotional learning and who taught in various types of schools. Convenience sampling introduced some selection biases, but participation was voluntary, and educators could opt out anytime.

#### **Procedures and EQ360 Instrument**

The study utilized various procedures to gather data and familiarize participants with EQ360. Participants were provided detailed instructions and guidance, including step-by-step written guides with screenshots. Informed consent was obtained from educator participants, and data collection occurred online due to pandemic restrictions. Educators engaged in watching on-demand videos and completing an EQ questionnaire. The study comprised control and intervention groups, with EQ360 serving as a diagnostic pre-test for the intervention group. Its primary objectives were to assess the impact of EQ360 on educators' social-emotional competency (SEC) development and evaluate the assessment tool's reliability, validity, and usability. EQ360 is a digital instrument aligned with the EQ curriculum, encompassing six competencies and 18 sub-competencies, with 72 assessment questions. The study sought to measure the effects of EQ360



on educators' SEC development, determine the instrument's reliability, validity, and usability, and highlight its potential significance as a universal SEC assessment tool by comparing the control and intervention groups. Additionally, the study explored the potential effects of engaging in an EQ assessment and the benefits of targeted interventions based on assessment results.

### **Instrumentation**

This section highlights the importance of using psychometrically sound instruments in quantitative research. The EQ360 questionnaire, based on a 5-point Likert scale, was the primary instrument used in this study to assess educators' social-emotional competencies. EQ360 consisted of 72 questions divided into six competencies and 18 sub-competencies. It provided a user-friendly interface, including text-to-speech support and user messages. A Google Form survey was used to collect data on the usability, validity, and reliability of the EQ360 instrument.

### **Data Analysis Procedures**

The data analysis procedures employed in the study are described in this section. A paired sample t-test was used to compare pre-test and post-test outcomes. Pearson's chi-squared test was applied to examine the relationship between the dependent variable (educator's EQ competency) and the independent variable (EQ360 as a formative assessment). The correlation test (Pearson's correlation coefficient) was used to measure the strength of the relationship between pre-test and post-test data. ANOVA and ANCOVA were utilized to analyze mean differences and compare datasets. IBM SPSS software was used for data analysis.

### **Validity and Reliability**

The validity and reliability of the EQ360 instrument used in the study are discussed in this section. To establish validity, the researcher examined the educators' agreement with their individual E.Q. scores and assessed the consistency of results through repeated assessments. The supervising committee reviewed and refined the instruments, enhancing their credibility and clarity. Data triangulation was employed to confirm participant responses' integrity and ensure confirmability. The study also considered internal and external validity with measures taken to establish both. Content validity was addressed by critically examining the structure and applicability of the EQ360 instrument, while criterion-related validity was evaluated through correlation analysis. Reliability was assessed through the test-retest method, with measures such as Cronbach's alpha and intra-class correlation coefficient (ICC) used to determine consistency and stability.

### **Assumptions**

The assumptions made in the study are outlined in this section. These assumptions relate to participants answering honestly, being confident in the importance of EQ/ SEL, the appropriateness of the chosen methodology, the meaningfulness and reliability of the data collection instruments, the representativeness of the sample, and the educators' comfort with the required technology. The study's outcomes and interpretations relied on these assumptions being correct.

### **Limitations**

The study's limitations are discussed, including the sample size and convenience sampling method, which may affect generalizability. The reliance on self-response from participants introduces the

potential for responder bias and subjectivity. The researcher's involvement in developing the EQ360 questionnaire and implementing this study raises the possibility of personal bias. Steps were taken to minimize these limitations, such as third-party guidance and review from the IRB and the Dissertation Committee, providing full disclosures, neutral wording of questions, and conducting the survey online to avoid researcher bias.

### **Ethical Assurances**

This section highlights the ethical considerations and assurances implemented in the study. Necessary approvals were obtained from the dissertation supervising committee and the Institutional Review Board (IRB). Participants were fully informed about the study and could withdraw at any time. Privacy and information protection measures were in place, and data was securely stored. The study did not interfere with educators' profession; only relevant data was collected. Participants received incentives through professional development credits and access to EQ360. The study adhered to IRB policies and legal privacy considerations.

### **Chapter 4: Findings**

The findings of the research study are presented in this chapter. The survey results from the Emotional Intelligence 360 (EQ360) questionnaire are discussed and followed by the user-feedback survey. The study aimed to assess the reliability, validity, and usability of the EQ360 tool, as well as the impact of EQ360 on educator social-emotional learning. The research questions guided the study, which focused on improving educators' social-emotional learning, reliability and validity of the EQ360 instrument, internal consistency, and user-friendliness.

### **Demographic Analysis of the Participants' EQ360 Assessment**

The study involved 60 K-12 educators recruited online through LinkedIn and Facebook. Participants were English-speaking and familiar with EQ/ SEL, ranging in age from 23 to 63 years. Convenience and snowball sampling was used, with participants divided equally into control and intervention groups. Demographic questions were included in the EQ360 assessment to understand participants' backgrounds and characteristics. This section provides a review of the demographics of all participants.

#### **Age Demographics**

The analysis of participants' age ranges reveals that the ages ranged from 23 to 63 years. The most frequent age ranges were 30-31 and 42-45. The control group had ages ranging from 23 to 63 years, with 31, 45, and 51 being the most frequent ages. In the intervention group, ages ranged from 24 to 55 years, with 30, 42, and 45 as the most frequent ages.

#### **Gender Demographics**

The gender distribution among the participants showed a significant imbalance. Most participants identified as female, comprising 85% of the total count, while males represented only 15%. In the control group, females accounted for 90% of participants, while males comprised 10%. In the intervention group, females constituted 80%, and males accounted for 20%.

#### **Racial Demographics**

The racial demographics of the participants revealed that the majority identified as White, comprising 93.3% of the total count. Asian participants comprised 5% of the group, and Latino or

Hispanic participants accounted for 1%. In the control group, 96.7% of the participants were White, and 3.3% were Latino or Hispanic. Within the intervention group, 90% of the participants were White, and 10% were Asian.

### **Primary Spoken Language Demographics**

The primary spoken language of the participants was predominantly English, with 97% primarily speaking English. A small percentage, 1.7%, primarily spoke Chinese, Polish, or other languages. In the control group, all participants spoke English, and in the intervention group, 90% primarily spoke English, and 3.3% spoke Chinese, Polish, or other languages.

### **Marital Status Demographics**

A significant portion of the participants, 68.3% overall, were married or in a domestic partnership. The control and intervention groups showed similar percentages, with 70% and 66.7% in a marriage or domestic partnership, respectively. Around 20% of all participants were single or never married. A small percentage of the participants were divorced (6.7%) or widowed (1.7%).

### **Income Demographics**

Regarding income, 33.3% of the participants had an income between \$65,000 and \$114,999. Another 33.3% had an income of \$115,000 or higher. A small percentage had an income of \$45,000 to \$64,999 (6.7%). The remaining participants, with less than 2% representation, either preferred not to disclose their income or fell into other income categories.

### **Educational Demographics**

Most participants in the study held a master's degree (81.7% overall). This trend was consistent across the control and intervention groups, with 80% and 83.3%, respectively, holding a master's degree. Minority percentages represented other educational levels.

### **Country Demographics**

The vast majority of participants, ranging from 96.7% to 100%, were from the United States. However, a small percentage, 1.7% overall and 3.3% within the intervention group, worked remotely from India while meeting the study's inclusion criteria.

### **Procedures and Data Analysis**

Primary data sets for the study were collected through the EQ360 questionnaire and a Google Form survey. The EQ360 assessment utilized self-report questions and a Likert scale for capturing survey responses. Data were presented using tables and charts. Only the researcher had access to the data to ensure privacy. The study included 60 participants divided equally into control and intervention groups. Participants watched EQ/ SEL professional development videos and completed the EQ360 assessment and Google Form survey. For the participants that withdrew their data were not included in the analysis. No major issues were reported during the study process.

### **Competency Results of Participants**

The analysis of the EQ360 survey results showed that responsible decision-making was the highest-rated competency among all participants, with a mean score of 87.04. Self-awareness was the second-highest competency, with a mean score of 77.56. The lowest competency was self-

management, with a mean score of 74.37. Similar patterns were observed in both the control and intervention groups, with responsible decision-making consistently ranked highest. The post-test scores for the intervention group showed improvement compared to the pre-test scores.

### **Sub-Competency Results of Participants**

The highest sub-competency was "respect for self and others," with a mean score of 88.11. "Consequence evaluation" was the second highest, with a mean score of 87.67. The lowest sub-competency was "self-perception," with a mean score of 70.89. Similar trends were observed in both the control and intervention groups, with "respect for self and others" consistently ranked highest.

### **Research Questions**

The research questions were addressed using various statistical analyses, including frequency, correlation, paired T-tests, and ANOVA. The first research question focused on whether using EQ360 improved educators' social-emotional learning development within four weeks. The analysis involved paired T-tests to compare pre-test and post-test scores, Pearson's correlation coefficient to examine the relationship between the two data sets, and ANOVA to determine statistical differences. The results of the paired T-tests showed a significant difference between pre-test and post-test scores, indicating an improvement in social-emotional learning. However, it was noted that the EQ/ SEL video workshops may have also contributed to the observed effect.

### **ANOVA Analysis**

The ANOVA analysis conducted on the competencies showed p-values greater than 0.05, indicating that there was no significant difference between the competency scores of the groups. However, the sub-competency analysis showed p-values lower than 0.05, which suggests significance. Overall, there was no significant effect of the EQ360 tool on the educators' social-emotional learning development within four weeks.

### **Research Question 2**

The second research question focused on the reliability of the EQ360 instrument. The analysis revealed that most participants strongly agreed with the statements about the instrument's reliability, indicating significant reliability levels. This confirms the reliability of the EQ360 instrument in assessing educators' social-emotional competency.

### **Research Question 3**

The third research question addressed the validity of the EQ360 instrument. The analysis demonstrated that participants strongly agreed with statements related to the instrument's validity, indicating significant validity levels. This supports the claim that the EQ360 instrument successfully measures what it intends to measure.

### **Research Question 4**

The fourth research question examined the internal consistency of the EQ360 instrument. The Cronbach's alpha values for the overall instrument and individual competencies indicated high internal consistency. This suggests that the EQ360 instrument has significant levels of internal consistency.

**Research Question 5**

The fifth research question focused on the usability of the EQ360 instrument. The analysis of participant responses showed that the majority strongly agreed that the instrument was user-friendly, with an easy-to-use design and navigation. The findings suggest that the EQ360 instrument demonstrated significant reliability, validity, internal consistency, and usability. However, no significant improvement in social-emotional learning development was observed within four weeks of using the instrument.

**Chapter 5: Summary, Conclusions, and Recommendations**

Chapter 5 provides a comprehensive summary, conclusions, and recommendations based on the research study. It emphasizes the importance of social-emotional competencies (SEC) in self-regulating behavior and building positive relationships, particularly in the educational context. The chapter highlights the need for educators to enhance their SEC to effectively implement Emotional Intelligence (EQ) programs and create a strong pro-social culture with the involvement of administrators, parents, and the community. The chapter discusses the need for more effective evaluation tools and efficient implementation of EQ programs in schools across the United States despite the adoption of EQ-based standards in many states. The COVID-19 pandemic has further underscored the importance of prioritizing EQ, especially in remote learning. The study focused on the impact of the Emotional Intelligence 360 (EQ360) tool on educator SEC development. The research methodology and participant groups are described, emphasizing the reliability, validity, and usability of the EQ360 assessment. The results showed a general increase in SEC scores within the intervention group, indicating the potential effectiveness of EQ360 in promoting SEC development. However, the difference between the intervention and control groups needed more significance to demonstrate a considerable impact on SEC development. Therefore, the study suggests that while EQ360 is an effective diagnostic tool, it needs to be paired with EQ interventions to achieve measurable SEC development.

The interpretation of the results section discusses the design and purpose of the control and intervention groups in the study. The demographic interpretation analyzes the participants' characteristics and highlights the sample population's relatively homogenous nature and its potential influence on SEC ratings. The competency interpretation examines the competency and sub-competency scores of the control and intervention groups and indicates high SEC ratings overall but no significant difference between the groups. The study demonstrates the potential for SEC development within a short research interval. The section on EQ360 reliability, validity, and usability interpretation confirms that EQ360 met the criteria for reliability, validity, and usability as a universal EQ assessment tool. The reliability analysis showed high internal consistency and indicates that EQ360 reliably assesses educators' SEC. The validity analysis demonstrated a strong agreement between participants' SEC results and their perception of the instrument's validity. The usability analysis indicated that participants found EQ360 user-friendly and easy to navigate.

The discussion of results concerning the literature compares EQ360 to other popular EQ assessment tools and highlights EQ360's strengths in completion time, assessment methods, cost-effectiveness, and detailed assessments of social-emotional competencies. The text recommends further research to establish the reliability, validity, and usability of EQ360 with larger and more diverse populations. Longitudinal studies and investigations into user-friendly and interactive EQ assessments, mobile-focused frameworks, and culturally appropriate assessments are also

suggested. The implications for future research include the integration of EQ and digital technology, the role of professional development for educators, and the design of effective and user-friendly EQ assessment tools.

**Researcher's Note:** The complete dissertation includes a comprehensive list of references and an appendix. Please check the "First Steps in Social Emotional Learning Technology" full document through ProQuest Dissertations for access to this additional information.