#### The Consistency and Validity of EQ360 on Adult Emotional Intelligence

#### Abstract:

The research presents the consistency and validity of Emotional Intelligence 360 (EQ360) on adult respondents. Emotional Intelligence Quotient (EQ) is an individual's ability to understand and manage emotions and behaviors. In academic settings, developing EQ is called Social-emotional Learning (SEL). This study focuses on the overall validity and reliability of the EQ assessment, EQ360, with an adult population. The study consisted of 841 adult participants who took the EQ360 online assessment and were recruited through random convenience sampling. The results showed that EQ360 was statistically valid and reliable. For comparative analysis, demographics such as age, race, gender, and socioeconomic status were also evaluated to determine if they had specific effects on EQ ratings. In addition, the study reviewed the most and least reliable and valid competencies, sub-competencies, and assessment items.

Keywords: Education, Leadership, People Capabilities, Emotional Intelligence, EQ, Socialemotional Learning, SEL, Adult Development, Maturational Development, EQ360, EQ Assessment, Personality Assessment, Leadership Assessment, Learning & Development

## The Consistency and Validity of EQ360 on Adult Emotional Intelligence

Managing and acting on one's emotions or reading and responding to the emotions of others are soft skill characteristics that have been recognized as key to having successful relationships, effective group work, and leading teams. However, these skills have also been a challenge for many individuals at some point in their lives, as many have never received formal training and have only learned them from their parents, mentors, and peers. Over the years, learning about emotional intelligence has progressed and can be quantified via visual and written assessments. Often the use of digital assessments can provide individuals with data points across specific periods and determine their "Emotional Intelligence Quotient" and their categories of specific EQ strengths and opportunities for improvement. It has been noted that emotional Intelligence is among the ten most in-demand skills for employers (World Economic Forum, 2020). Bughin et al. (2018) mentioned that by 2030, there would be a 26% increase in the demand for emotional regulation skills within professional environments. As such, talent coaches and talent developers have recently focused on emotional intelligence (EQ) as a critical professional and life skill. More so, they have been focused on helping their clients hone their behaviors to attain career advancement and satisfaction.

EQ is understanding, expressing, and organizing emotions and responses (Boyatzis, Goleman & McKee, 2002; Goleman, 1995; & Hill et al., 2019). As such, EQ assessments have been used to measure emotional intelligence for the past 25 years. Ackley (2016) also mentioned various theories that supported the research basis for EQ Assessments, including Salovey and Mayer Model, Goleman Model, and Bar-On Model. A shift from personality to EQ assessments contributed to more significant and diverse performance characteristics. These diverse performance characteristics lead to increased job performance, leadership effectiveness, agility, and resilience-related skills (Ackley, 2016; Cavaness, Fleshman & Picchioni, 2020; & David, 2020).

EQ is equally involved in the quality of relationships a person makes (Hibbard & Walton, 2017). Today, students learn and develop their EQ in academic environments through social-emotional learning (SEL) curricula. SEL is the process of effectively obtaining and applying EQ knowledge, attitude, and skills (CASEL, 2023a). SEL is needed to help individuals identify and manage emotions like caring for others, making wise choices, building relationships, and adequately responding to challenging situations (Bailey et al., 2019; & Elias & Zins, 2014). Individuals can develop and improve their EQ more effectively with a strong SEL cognitive, behavioral, and constructivist development program. As with most development methodologies, understanding one's baseline can inform a more academic and targeted approach to EQ development.

Within the United States, SEL is required in most states and schools (CASEL, 2022b). SEL strategies were also a foundational element within the Every Student Succeeds Act (ESSA) to empower a safe, healthy, and supportive environment (Every Student Succeeds Act, 2015, as cited by Dunn, (2019, p. 19). SEL has been proven to increase the academic success of students. For example, SEL interventions contributed to a 9% improvement in school and classroom behavior and an 11% improvement in academic achievement (Durlak et al., 2011). In addition, Augustine et al. (2022) conducted case studies focusing on schools that fostered stronger EQ-based relationships between educators and students and found that students were more motivated, focused, and disciplined when subjected to SEL(Augustine et al., 2022). It also increased positive student behavior: improved attendance, prosocial behavior, and reduced anxiety (Schneider, 2022). Also, Goorabi et al. (2021) highlighted that SEL positively influences academic performance and behavior-related issues.

Emotional Intelligence and Social-emotional learning are emerging skills for adults today. For example, Emotional intelligence was included in the list of skills in demand for a job released by the World Economic Forum (2018) (Forest & Watson, 2020). In workplaces, significant research showed the necessity of EQ and SEL. According to Bouffard, Jones, & Schonert-Reichl (2017), a teacher's social-emotional learning affects classroom organization and management. Also, Lima, Shala & Spahi (2022) stated that emotional intelligence had been increasingly becoming a foundation of organizations and impactful to employee performance. Bailey et al. (2018) listed the most common features of an effective SEL program; it occurs within supportive contexts, develops adult competencies, collaborates with family and community, is goal-driven in behavior and skills, and has relevant and reasonable goals. SEL was considered integral as it promoted long-lasting relationships, healthier physical benefits, and lifelong successes (Elias & Zins, 2014; & Morse,

2021). Stevens (2010) and Chambers (2022) studied and leveraged emotional intelligence as a key driver in developing effective leadership strategies to make good leaders great. The study reported that emotional intelligence was crucial for successful leaders to develop high-performing organizations with the best performances, best practices, and the best employees (Stevens, 2010; & Chambers, 2022).

EQ assessments are often self-rating assessments that measure the various competencies and components that drive EQ (Butler et al., 2022; & Gonzales, 2022). While there are many EQ assessments in the marketplace, many lack critical and practical features such as data triangulation for greater validity, comparative analysis over time to measure growth and progress, and a variety of question selections to increase validity in different environments and to increase overall validity as a robust assessment (Schneider, 2022). According to McKown (2019), EQ assessments are valued for their applied use in coordinating standards, programs, and professional learning; balancing the priorities of assessment developers and educators; ensuring that inferences and decisions based on assessment scores are supported by evidence of the assessment's psychometric validity; and establishing conditions for assessment and data use that maximize benefit while mitigating risks. EQ360, Emotional Intelligence 360, is a self-assessment and scenario-based inventory that aids individuals and groups in better perceiving, understanding, and developing their motivations, emotions, and behaviors, which leads to enhanced mindsets, agility, and resilience (Strut Learning, 2022). As such, EQ360 offers different platform versions for individuals, schools, coaches, and businesses (Strut Learning, 2022).

This study aimed to evaluate the validity and reliability of the EQ360 assessment tool to measure adult individuals' EQ. The study also evaluated the validity and reliability of each assessment's six competencies, and 18 sub-competencies, with 72 questions to determine the value of each element. The Collaborative for Academic, Social, and Emotional Learning (CASEL), the largest academic research group focusing on SEL, constructed a theoretical model based on Goleman, often called CASEL Five (Cooper et al., 2017). The CASEL Five comprises the following competencies: Self Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible decision-making (Robert Wood Johnson Foundation, 2017). These competencies were the basis of EQ360 competencies, with "motivation" added in and elevated as a sixth core competency. Each

competency was then sub-divided into three sub-competencies for a total of 18 sub-competencies which allows for greater evaluation: Emotional Awareness, Self-Perception, Optimistic Outlook, Internal Regulation, Behavior Control, Goal Pursuance, Appreciating Social and Environmental Diversity, Adaptive Behavior, Resource and Support Recognition, Communication, Social Engagement, Interdependence, Constructive Thinking, Consequence Evaluation, Respect for Self and Others, Enthusiasm, Initiative, and Resilience.

EQ360 leverages multiple features and tools to provide a comprehensive diagnostic snapshot and a longitudinal perspective of one's social-emotional aptitude through self- and scenario-based assessments, positive, negative, and reversed aligned questions, and third-party ratings. The results of the assessments can be compared over time or with groups.

#### **Background of the Study**

This research study sought to measure and determine the consistency and validity of the Emotional Intelligence 360 (EQ360) assessment on adult respondents. EQ360 is an online self-assessment inventory that helps individuals and teams realize and comprehend their motivations, behaviors, and emotions (Strut Learning, 2022). Emotional intelligence (EQ) is a collection of competencies, attributes, and skill sets that affect an 'individual's ability to adjust to environmental demands and pressure (Ackley, 2016). Social-emotional learning (SEL) is the process by which individuals develop EQ. A review of EQ and SEL literature revealed that studying the effectiveness of various EQ assessments is critical for scientific efficacy. Freedman et al. (2018) discovered that using EQ assessment tools with students was essential for analyzing and improving their SEL abilities and assisting them to thrive in their careers. Some schools and businesses use EQ assessment tools to help individuals improve their SEL skills and emotional intelligence. McKown's (2019) research confirmed that a practical, technically sound, and feasible SEL assessment tool is required to measure the EQ level of individuals and groups effectively and to assess and improve their competencies. The SEL benefits encourage positive social behavior, improved performance, and increased emotional agility (Dusenbury & Weissberg, 2017). Recruitment, coaching, leadership development, and employee retention are examples of applications in the workplace that benefit from high EQ cultures (Sjolund, 2012).

## **Problem Statement**

This study sought to assess the reliability and validity of the EQ360 assessment and the assessment's ability to be an effective and practical EQ measurement tool for adults.

By the end of this study, the researchers aim to have answered the following questions:

- 1. Is EQ360 a valid tool to measure emotional intelligence for adults?
- 2. Is EQ360 a reliable tool to measure emotional intelligence for adults?
- 3. Is there a most valid competency?
- 4. Is there a most reliable competency?
- 5. Is there a most valid item question?
- 6. Is there a most reliable item question?

#### **Purpose of the study**

This study aimed to assess the validity and reliability of the EQ360 assessment for adult participants. Furthermore, the researchers measured the reliability and validity of each competency, sub-competency, and question within the assessment. The study sought to identify the questions and competencies that are least and most relevant and the questions and competencies that are least and most consistent. As most research on emotional intelligence has focused on students, this study will focus on the EQ development of adults and professionals. It is known that EQ is an essential component in leadership development, yet having greater clarity on its influence on adult professionals' development will be critical in developing future leaders (Dusenbury & Weissberg, 2017). This quantitative and methodological study involved random sampling. The sample consisted of 841 adults, and the EQ360 assessment tool selection was based on the growing necessity for a robust, practical, and accessible EQ individual and group measurement tool. The test was done online, accessed through this website: https://www.myeq360.com.

# **Theoretical Framework**

The concept of Emotional Intelligence (EI) was first introduced by Salovey and Mayer and is defined as the ability to recognize, understand, manage, and regulate emotions (Goleman, 1995;

Mayer et al., 2004). The Bar-On model expanded on this definition, stating that EI involves an array of non-cognitive capabilities, competencies, and skills that allow individuals to cope with environmental pressures (Bar-On, 1997, as cited in Ackley, 2016, p. 271). Goleman's (1995) model included five emotional intelligence categories, later refined to four competencies: self-awareness, self-management, social awareness, and relationship management.

Articles drew upon various theoretical models to construct Social-Emotional Learning (SEL), including academic, emotional, behavioral, motivational, and sociability models. Some of the foundational theories used in constructing SEL are the cognitive behavior modification model, the ecological systems theory, the social-cognitive theory, the prevention science theory, learner-centered psychological principles, and Goleman's (1995) emotional intelligence theory (Durlak et al., 2011; & Hill, et al., 2019).

In 1994, the Fetzer Institute brought together researchers, educators, and child advocates to address concerns about ineffective school programming and a lack of program coordination. The group developed social-emotional learning (SEL) to address those concerns and promote positive development in children. The Collaborative for Academic, Social, and Emotional Learning (CASEL) has since taken on leadership of the model and evolved it to become more systematic, emphasizing schoolwide models and encouraging collaboration with families, schools, and communities (Borowski, 2019; CASEL, 2023b).

CASEL carefully constructed and continuously assessed SEL competencies that may be able to help examine emotional intelligence (Buckley et al., 2018). Although EQ360 leveraged the CASEL's primary competencies: Self Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible decision-making (Robert Wood Johnson Foundation, 2017) it added elevated "Motivation" as a sixth competency. Measuring motivation has been found necessary for developing EQ as it associates an individual's perception of engagement within the contexts of personal, social, and professional settings and programs (Barron, Getty & Hulleman, 2021). As such, self-determination theory (Deci & Ryan, 1985; & Khalilzadeh & Kodeh, 2018) indicates that there are three types of motivation: extrinsic, intrinsic, and amotivation. This emphasizes that an individual's perspective determines the level of engagement or effort the

individual will exert in activities (Deci & Ryan, 1985; & Khalilzadeh & Kodeh, 2018). EQ360 leverages another unique feature for the triangulation of results: It can use third-party reviewers such as a manager, co-worker, or spouse to assess an individual. With this feature, EQ360 offers a more reliable, valid, and thorough evaluation of EQ than a self-assessment (Martinez, 2020).

#### **Scope of the Study**

The research desired to identify the consistency and validity of EQ360 to adult respondents. The demographics measured in this research were age, language, marital status, education, country, gender, race, and income. These demographic characteristics assisted in classifying the sample and were primarily used to determine statistical significance. The study and its results are exclusive to the online assessment, EQ360, and were not intended to be compared with other assessments.

#### Methodology

## **Research/ Study Design**

This research primarily analyzed the reliability and validity of the EQ360 assessment. A quantitative research method was implemented for this study as it involved gathering numerical data for analysis (Albers, 2017). A questionnaire based on 72 questions focusing on six EQ competencies and 18 sub-competencies was leveraged, where all questions were based on a five-point Linkert scale.

#### **Population and Sample**

This research was conducted online with 841 adult respondents chosen through random convenience sampling. The respondents consisted of 20% males, 76.3% females, 0.2% other, and the remaining 3.4% prefer not to say. The races of the subjects were mostly White (65.9%), Asian (15.8%), Hispanic (6.2%), Black or African Descent (3.3%), and other races (8.8%). When it came to the income of the respondents, the subjects had varied income statuses. The largest percentage of respondents earn up to \$115,000 and above (30%), and the least were those earning \$30,000 - \$44,999 (6.1%). With a standard deviation of 0.569, the sample size selected was deemed significant enough for the population.

#### Procedures

The study was conducted online over eight months in 2022. The participants were the users of the EQ360 assessment, and after they registered, they were provided with the information to engage with the self-directed assessment. Completing the assessment took approximately 15 to 20 minutes, and the respondents were able to get their results immediately after they finished. The participants could download copies of the results and engage in optional EQ development activities.

## Statistical Analysis Used

Once the responses were collected, the analysis took place within the IBM SPSS software. This is a software tool used for statistical analysis. The following analyses were conducted- Frequency and Descriptive Analysis, Pearson Correlations for Validity and Correlations, Cronbach's Alpha for internal consistency and reliability, and One-way ANOVA for Significance. The analysis looked into the demographic data for classification and an in-depth understanding of the variables through frequency and descriptive analysis. The analysis looked at demographic data and responses on the assessment and for each question. Together they helped provide an understanding of the reliability and validity of the EQ360 assessment. Additionally, it provided a greater understanding of the highest and lowest competencies and questions obtained by the adult responses. Lastly, various demographics were reviewed to determine their effect on EQ ratings.

• Frequency and Descriptive Analysis

Descriptive statistics analysis was used to classify the sample for the most and least frequently answer. The frequency of the data was also used to identify the subjects' responses to each question. Examining these data provided a better understanding of the variables and helped determine whether a balanced and sufficient research design exists. Frequencies also supplied information on mean, median, mode, standard deviation, and missing data and identified outliers.

Pearson Correlations for Validity and Correlations.
 Pearson correlations for validity and correlations were usually defined as measuring the strength and direction of a relationship between two variables. The researchers used this

statistic to know if the test and its questions were valid. This implied that the test could be used over time and with varied samples. It can be inferred that this analysis was used to find that the test measures what it was supposed to measure.

• Cronbach's Alpha for internal consistency and reliability.

Cronbach's Alpha was a measure of internal consistency and reliability. It was usually stated how the set of items was closely related as a group. This statistic was implemented to analyze whether the test and its items were reliable. This implied that the test could be used over time and with varied demographics like race, age, gender, or socioeconomic status.

• One-way ANOVA for Significance.

One-way ANOVA for significance compares the means of two or more independent groups to see if there is statistical evidence that the associated population means differ significantly. This statistic is used to compare if the assessment is significant with the demographic information of the sample, and it was conducted to distinguish whether the variables will be more likely to affect the results of the test.

# Instrument (EQ360)

EQ360 is an online assessment to measure an individual's emotional intelligence. EQ360, formerly SELDA or Social Emotional Learning Diagnostic Assessment, is a digital web-based assessment website for ages 8 to adult. The first items to be encountered during the assessment were preassessment demographic questions. Then, a 72-item online questionnaire with a five-point Likert scale format was answered. The remaining questions shall be statements and/ or situations to assess one's application of emotional intelligence. Lastly, post-assessment questions were presented to address additional demographic information and perceptions of validity-based questions. The following are the competencies used at EQ360:

- Self-Awareness
  - Emotional Awareness
  - Self-Perception
  - Optimistic Outlook

- Self-Management
  - Internal Regulation
  - Behavior Control
  - Goal Pursuance
- Social Awareness
  - Appreciating social and environmental diversity
  - Adaptive Behavior
  - Resource and Support Recognition
- Relationship Skills
  - Communication
  - Social Engagement
  - Interdependence
- Responsible decision-making.
  - Constructive Thinking
  - Consequence Evaluation
  - Respect for self and others
- Motivation
  - Enthusiasm
  - Initiative
  - Resilience

# Results

This study demonstrated the reliability and validity of EQ360. The analyzed demographic data and responses to the assessment and each question were interpreted and worked together to offer insights into the EQ360 assessment's reliability and validity. It also revealed a thorough understanding of the highest and lowest competencies and questions obtained from adult responses. Finally, various demographics were probed to see how they affected EQ ratings.

Table 1. Frequencies and Percentage Analysis

									Fre	eque	ncie	s and	d Per	rcent	age	Anal	ysis									
	Frequencies Statistics																									
	-	Self-Awareness	Relationship Skills	Responsible Decision-Making	motivation	Self-Management	Social Awareness	Emotional Awareness	Communication	Constructive Thinking	Enthusiasm	Self-Perception	Behavior Control	Adaptive Behavior	Consequence Evaluation	Initiative	Optimistic Outlook	Goal Pursuance	Interdependence	Respect for Self & Others	Resilience	Social Engagement	Internal Regulation	Resource & Support Recognition	Appreciating Social & Environmental Diversity	Total Competencies
N	Valid	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		77.24	81.51	84.43	81.44	76.21	78.26	81.95	78.17	83.83	77.59	71.87	76.65	74.86	85.17	84.44	77.89	76.34	85.01	84.27	82.29	81.36	75.65	78.34	81.57	1916.34
Mode		77	85	88	83	78	83	80	80	80	75	70	85	80	90	90	80	75	95	90	85	80 <sup>a</sup>	80	80	80	1900 <sup>a</sup>
Minimum		45	42	20	30	47	38	20	25	20	35	40	30	25	20	20	25	40	35	20	20	30	25	20	20	1053
Maximum		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	2340
a. Multiple mo	odes exist.	The sm	allest v	alue is s	shown																					

The table presents the frequencies and percentage analysis. The statistic used for this analysis was descriptive and frequency statistics. The overall results showed the frequency of competencies achieved by the respondents. As such, the competency with the highest mean score was "Responsible Decision-Making" (84.43%), while the competency with the lowest mean score was "Self-Awareness" (76.21%). It was found that the sub-competency, "Consequence Evaluation," had the highest mean score (85.17%), and the sub-competency, "Self-Perception," had the lowest mean score (71.87%). The questionnaire frequencies are positively skewed as most responses in the test were 'agree' or 'somewhat agree.' This statistic revealed that the Consequence Evaluation sub-competency under the Responsible decision-making competency was the most perceived characteristic within the subjects' emotional intelligence, and in turn, Self-Perception under the competency of Self-Awareness was the least.

Table 2. Correlation Test of Competencies

									Cor	relatio	ons															
		Self-Awareness	Relationship Skills	Responsible Decision- Making	motivation	Self-Management	Social Awareness	Emotional Awareness	Communication	Constructive Thinking	Enthusiasm	Self-Perception	Behavior Control	Adaptive Behavior	Consequence Evaluation	Initiative	Optimistic Outlook	Goal Pursuance	Interdependence	Respect for Self & Others	Resilience	Social Engagement	Internal Regulation	Resource & Support Recognition	Appreciating Social & Environmental Diversity	Total Competencies
Self-Awareness	Pearson Correlation	1	.712	.604	.680	.671	.524	.688	.618	.567**	.584	.636	.517**	.374	.510	.478	.812	.608**	.552	.519	.586	.577	.459**	.425	.379**	.844
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Relationship Skills	Pearson Correlation	.712	1	.639	.674	.634	.590	.576	.808	.579	.575	.406	.480	.424	.531	.528	.534	.566	.798	.577	.532	.844	.449	.455	.448	.861 <sup>***</sup>
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Responsible Decision-	Pearson Correlation	.604	.639	1	.710	.494	.458	.704	.566	.870	.525	.239	.383	.378	.888	.546	.332	.433	.469	.880	.657	.531	.349	.261	.395	.795
waking	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
motivation	Pearson Correlation	.680	.674	.710	1	.663	.504	.574	.593	.652	.823	.333"	.508	.409	.625	.768	.525	.629	.452	.599	.838	.606	.430	.318	.409	.861
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Self-Management	Pearson Correlation	.671	.634	.494	.663	1	.574	.402	.569	.481	.562**	.431"	.818	.426	.416	.469	.596	.772	.443	.411"	.577	.541	.756**	.455	.408**	.825
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Social Awareness	Pearson Correlation	.524	.590	.458	.504	.574	1	.356	.492	.409	.400	.393	.397	.764	.397	.400	.390	.430	.442	.404	.426	.511	.515	.740	.745	.740
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Emotional Awareness	Pearson Correlation	.688	.576	.704	.574	.402	.356	1	.516	.615	.468	.146	.324	.311	.602	.436	.288	.340	.419	.640	.491	.478	.281	.193	.299	.667
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Communication	Pearson Correlation	.618	.808	.566	.593	.569	.492	.516	1	.554	.470	.354	.396	.418	.476	.453	.447	.497	.440	.466	.517	.545	.447	.351	.336	.739
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Constructive Thinking	Pearson Correlation	.567**	.579	.870	.652	.481**	.409**	.615	.554	1	.480**	.224	.381**	.328	.680**	.490	.352	.403**	.389	.632**	.617	.476	.347**	.242	.352**	.724
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Enthusiasm	Pearson Correlation	.584	.575	.525	.823	.562	.400	.468	.470	.480	1	.237	.432	.332	.457	.407	.507	.531	.411	.452	.566	.528	.364	.250	.320	.705
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
Self-Perception	Pearson Correlation	.636	.406	.239	.333	.431	.393	.146	.354	.224	.237	1	.270	.206	.205	.238	.371	.402	.332	.202	.336	.309	.343	.396	.280	.489
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841

The statistic selected in this analysis was Pearson's r correlation, which was chosen to identify if the items of EQ360 accurately measured emotional intelligence. The overall findings showed a valid and positive correlation between competencies which could be interpreted as the emotional intelligence was measured precisely through EQ360.

The "Relationship Skill" and "Motivation" items had a positively significant correlation score and an even higher validity. This illustrated that if one of the mentioned competencies were high, the other would also increase. Additionally, these competencies displayed high chances of measuring emotional intelligence. However, competency "Self-perception" had a more positive correlation but weaker and lesser validity. This can infer that the stated competency may rise together with the others, but it was less likely to predict emotional intelligence accurately.

The question "No. 30" has the highest Pearson correlation and is the most valid, whereas 'the question "No.45" has a negative correlation and is the least valid. This indicated that question No.

30 had a higher chance of gauging emotional intelligence, while question No. 45 was less likely to measure emotional intelligence with precision. Overall, the items revealed highly valid competencies to assess an individual's emotional intelligence.

<b>Reliability Statistics</b>										
Cronbach's	N of Items									
Alpha										
0.949		24								

# Table 3. Reliability Statistics.

	Corrected Item-	Cronbach's Alpha if
	Total Correlation	Item Deleted
Emotional Awareness	.628	
Communication	.710	-
Constructive Thinking	.695	-
Enthusiasm	.669	-
Self-Perception	.450	-
Behavior Control	.589	-
Adaptive Behavior	.514	-
Consequence Evaluation	.652	-
Initiative	.611	-
Optimistic Outlook	.596	-
Goal Pursuance	.665	-
Interdependence	.600	-
Respect for Self & Others	.654	-
Resilience	.706	-
Social Engagement	.701	-
Internal Regulation	.554	*
Resource & Support Recognition	.486	-

# **Item-Total Statistics**

Appreciating Social &	.518
Environmental Diversity	

# **Item-Total Statistics**

	Corrected Item-	Cronbach's Alpha
	Total Correlation	if Item Deleted
Answer_4	.940	.937
Answer_5	.943	.936
Answer_6	.934	.938
Answer_7	.796	.978

Cronbach's Alpha statistic was used in this analysis. This statistic was utilized to measure if the test and items were consistent in measuring emotional intelligence. The results expressed a reliable and positive correlation between competencies. An alpha of 0.949 exhibited that the competencies within the test were highly consistent.

The mentioned statistics also measured the items within the test. It appeared that the Communication sub-competency under relationship skills competency had the highest reliability ( $\alpha$ =0.710), and the self-perception sub-competency under self-awareness competency had the least reliability ( $\alpha$ =0.450). This shows that the relationship skills competency was the most consistent item to measure emotional intelligence, and self-awareness competency was the least consistent item to assess emotional intelligence. The items with the most reliable responses were Answer No. 5 ( $\alpha$ =0.943), while the least reliable was Answer No. 7 ( $\alpha$ =0.796). This surmised that the declared items were to most and least consistent in making light of an individual's emotional intelligence.

Table 4. One-way ANOVA Analysis based on Demographic Variables.

			Correl	ations					
		Age	Language	Education	Martial Status	Countary	Gender	Race	Income
Age	Pearson Correlation	1	130**	.352**	570**	.109**	128**	.166**	.182**
	Sig. (2-tailed)		0.000	0.000	0.000	0.002	0.000	0.000	0.000
	N	838	838	838	838	838	838	838	838
Language	Pearson Correlation	130**	1	-0.03098	0.046	134**	.095**	152**	202**
	Sig. (2-tailed)	0.000		0.370	0.179	0.000	0.006	0.000	0.000
	Ν	838	841	841	841	841	841	841	841
Education	Pearson Correlation	.352**	-0.03	1	329**	078*	.113**	0.062	.174**
	Sig. (2-tailed)	0.000	0.370		0.000	0.023	0.001	0.073	0.000
	Ν	838	841	841	841	841	841	841	841
Martial Status	Pearson Correlation	570**	0.046	329**	1	073*	0.004	099**	148**
	Sig. (2-tailed)	0.000	0.179	0.000		0.035	0.903	0.004	0.000
	N	838	841	841	841	841	841	841	841
Countary	Pearson Correlation	.109**	134**	078*	073*	1	0.022	.228**	.113**
	Sig. (2-tailed)	0.002	0.000	0.023	0.035		0.523	0.000	0.001
	Ν	838	841	841	841	841	841	841	841
Gender	Pearson Correlation	128**	.095**	.113**	0.004	0.022	1	.211**	.126**
	Sig. (2-tailed)	0.000	0.006	0.001	0.903	0.523		0.000	0.000
	N	838	841	841	841	841	841	841	841
Race	Pearson Correlation	.166**	152**	0.062	099**	.228**	.211**	1	.120**
	Sig. (2-tailed)	0.000	0.000	0.073	0.004	0.000	0.000		0.000
	Ν	838	841	841	841	841	841	841	841
Income	Pearson Correlation	.182**	202**	.174**	148**	.113**	.126**	.120**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
	Ν	838	841	841	841	841	841	841	841

\*\*. Correlation is significant at the 0.01 level (2-tailed).

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

This analysis used One-way ANOVA to demonstrate the difference between the demographic data and EQ360, which is necessary to check which demographic data will likely affect the test result. The P- Value < 0.05, and as a result, we can conclude there is a significant difference with all demographic variables except Income Variable, where some competencies have a P-value > 0.05representing no significant difference. This statistic pointed out that all the demographic data, except income, will most likely produce varied responses. These data may affect an individual's emotional intelligence. Specifically, language demographic may produce highly different responses. On the other hand, income did not affect the test.

## Conclusion

This study assessed the reliability and validity of an emotional intelligence measure called EQ360. Overall, the validity of EQ360 showed an accuracy of measure at 86.4%, which indicated that the test measured what it is supposed to measure, and a reliability of 94.9% that displays the consistency of the measure as it presented the stability of each item in the test to measure emotional intelligence. The research concluded that EQ360 was an accurate and consistent measure of emotional intelligence. This statistic revealed that the responsible decision-making competency was the most valid competency, and self-awareness was the least. Statement No. 30 ("When dilemmas arise, I solve them constructively.") was the highest predictor of emotional intelligence, and statement No. 45 (My attitudes and preferences are reflected in my behaviors.") was the least accurate item to measure EQ. In terms of reliability, relationship skills competency was the most consistent item to measure emotional intelligence, and self-awareness competency was the least reliable to measure EQ. Answer No. 5 ("I disagree with what others say about what my personality is like.") was the most consistent item, while the least consistent item was Answer No. 7 ("I understand what behaviors are appropriate based on the environment I am in."). Overall, the EQ360 as a measurement of emotional intelligence was valid and reliable. This statistic indicated that, except for income, all demographic data would most likely yield different results. These data may have an impact on a person's emotional intelligence. Language demographics may produce widely disparate responses. Income, on the other hand, did not affect the test.

EQ360 assessment was found to be an effective tool for measuring an adult individual's EQ. Assessing one's EQ for targeted development and social and professional interactions is essential for self-development, team development, and professional improvement. Also, understanding one's EQ baseline can help with targeted learning and development opportunities to aid mindset shifts and behavior adoption. Through research, it is clear that EQ can be developed. It is also clear that a more targeted EQ approach benefits personal, professional, and leadership development. This study presented that EQ360 can aid in the assessment process of developing emotional intelligence.

#### Limitations

This research was limited by having a smaller sample size that can only be reflected in a population equivalent to 841 individual samples. Due to the convenience sampling method, the subjects' diversity was limited to the location and accessibility of the test. This research did not analyze geographic location, which can also limit the research. This research specifically studied the online emotional intelligence assessment EQ360. With this, the study did not aim to validate other emotional intelligence tests nor purport EQ360 to have been compared with other tests.

# **Future Studies**

Future studies with more varied and diverse populations related to age, race, or ethnicity are recommended. Studies may also take into account the language barriers of specific populations. A larger sample population may also contribute to continuing studies regarding EQ and SEL. Lastly, there may be further research on developing and improving the assessment EQ360, including assessing the value of facial expressions, body language, and behaviors, though cultural factors may differentiate the results. Additional EQ research may benefit future assessment developers, program coordinators, and thoughts that engage assessments.

## References

- Aburas, H., Al-Ali, N., Al-Omair, T., Al-asmari, A., Al-jrais, M. and Al-rizqi, M., 2016. Awareness and knowledge of neurological complications while administering local anesthesia among the dental professionals of Riyadh. *Pediatr Dent Care*, 1(128), p.2.
- Ackley, D. (2016). Emotional intelligence: A practical review of models, measures, and applications. *Consulting Psychology Journal: Practice and Research*. 68 (4), 269-286. http://dx.doi.org/10.1037/cpb0000070
- Albers, M. J. (2017). Quantitative data analysis—in the graduate curriculum. *Journal of Technical Writing and Communication*. 47(2), 215–233. doi:10.1177/0047281617692067
- Atwell, M., & Bridgeland, J. (2019). Ready to lead: a 2019 update of principals' perspectives on how SEL learning can prepare children and transform schools. *Creative Education*. 12 (11).
- Augustine, C. H., et al. (2022). Schools and out-of-school-time programs collaborating to build students' social-emotional skills offer lessons for others. One insight? Committed leadership matters. Strengthening Students' Social and Emotional Skills: Lessons from Six Case Studies of Schools and Their Out-of-School-Time Program Partners. Retrieved from: <u>https://www.wallacefoundation.org/knowledge-center/pages/strengthening-students-</u> social-and-emotional-skills-vol2-pt1.aspx
- Bailey, C., et al. (2019). Ruler: a theory-driven, systemic approach to social, emotional, and academic learning. *Educational Psychologist*. 54 (3). 144-161. https://doi.org/10.1080/00461520.2019.1614447
- Bailey, R., et al. (2018). Preparing for effective SEL implementation. *Harvard Graduate School* of Education.
- Barron, K. E., Getty, S. R., & Hulleman, C. (2021). What is the role of motivation in social and emotional learning?. *Motivating the SEL Field Forward Through Equity (Advances in Motivation and Achievement*. 21. Emerald Publishing Limited, 23-41. DOI:10.1108/S0749-742320210000021002

- Becker, K. D., et al. (2018). The core competencies components of evidence-based socialemotional learning programs. *Prevention Science*. 20, 457 267. <u>https://doi.org/10.1007/s11121-018-0953-y</u>
- Borowski, T. (2019). CASEL's framework for systemic social and emotional learning. *Measuring SEL: Using Data to Inspire Practice*. Retrieved from: https://measuringsel.casel.org/wpcontent/uploads/2019/08/AWG-Framework-Series-B.2.pdf
- Bouffard, S. M., Jones, S. M., & Weissbourd, R. (2013). Educators' social and emotional skills vital to learning. *Kappan*. 62-65.
- Boyatzis, R., Goleman, D., & McKee, A. (2002). Primal leadership: Realizing the power of emotional intelligence. *Harvard Business School Press*.
- Buckley, K., et al. (2018). Choosing and using SEL competency assessments: What schools and districts need to know. *Measuring SEL using data to Inspire Practice*.
- Collie, R.J., Perry, N. E., & Shapka, J. D. (2012). School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*. 104 (4), 1189-1204. DOI: 10.1037/a0029356
- Bughin, J., et al. (2018). Skill shift: Automation and the future of the workforce. *McKinsey Global Institute*.
- Butler, L., et al. (2022). Evidence and strategies for including emotional intelligence in pharmacy education. American Journal of Pharmaceutical Education. 86 (10). doi: https://doi.org/10.5688/ajpe8674

CASEL. (2023a). What is SEL? https://casel.org/what-is-sel/

CASEL. (2023b). Our History https://casel.org/about-us/our-history/

- Cavaness, K., Fleshman, J. W. & Picchioni, A. (2020). Linking emotional intelligence to successful health care leadership: The big five model of personality. *National Library of Medicine*. 33(4): 195–203. doi: 10.1055/s-0040-1709435
- Chambers, A. L. (2022). Emotional intelligence as a leadership strategy before and during the covid-19 pandemic: a phenomenological study. *ProQuest*. Drexel University. Retrieved from: <u>https://www.proquest.com/openview/8979e3facdae41a9056c0cfd2c1c2c30/1?pq-origsite=gscholar&cbl=18750&diss=y</u>
- Cooper, G., et al. (2017). Development and initial validation of a social-emotional learning assessment for universal screening. *Journal of Applied Developmental Psychology*. http://dx.doi.org/10.1016/j.appdev.2017.06.002
- Davis, J. L. (2020). The moderating effect of leadership adaptability on the relationship between employee adaptability and job performance. *Master's Theses*. San Jose State University. doi: <u>https://doi.org/10.31979/etd.j7qp-j5jj</u>
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. Berlin: Springer Science & Business Media. <u>https://doi.org/10.1007/978-1-</u> <u>4899-2271-7i</u>
- Dunn, M. (2019). The Impact of a Social Emotional Learning Curriculum on the SocialEmotional Competence of Elementary-Age Students (Doctoral Dissertation, Clemson University)
- Durlak, et al. (2011). The impact of enhancing students' social and emotional learning: a metaanalysis of school-based universal interventions. *Child Development*. 82 (1). 405-432.
- Dusenbury, L. & Weissberg, R. P. (2017). Social-emotional learning in elementary school: Preparation for success. *The Education Digest*. 83 (1), 36-43.
- Elias, J.E. & Zins, M. J. (2014). Social and emotional learning. *Journal of Educational and Psychological Consultation*. doi:10.1080/10474410701413152
- Foster, L. R. & Wisniewski, R. (2021). Addressing the social-emotional needs of adult learners to ensure workplace success: Combined practices that integrate social-emotional learning

and employability skills. *RTI International*. Retrieved from: <u>https://files.eric.ed.gov/fulltext/ED611625.pdf</u>

- Freedman, J., et al. (2018). Strengthening social-emotional learning with the student, teacher, and schoolwide assessments. *Journal of Applied Developmental Psychology*. 55, 71-92. <u>https://doi.org/10.1016/j.appdev.2017.07.010</u>
- Green, K., MacLeod, I. & Salafi, S. (2022). First steps in social-emotional learning technology: the impact of a digital diagnostic assessment on educator social-emotional learning development.
- Goleman, D. (1995). Emotional intelligence. Bantam Books
- Gonzales, M. (2022). Understanding emotional intelligence. Emotional Intelligence for Students, Parents, Teachers and School Leaders. 1 -18. Retrieved from: <u>https://link.springer.com/chapter/10.1007/978-981-19-0324-3\_1</u>
- Goorabi, F. P., Babakhani, N., & Lotfi Kashani, F. (2021). Effectiveness of Collaborative for Academic, Social and Emotional Learning (CASEL) on Internalizing and Externalizing Emotional and Behavioral Problems and Academic Performance of Primary School Students. *Journal of Applied Psychological Research*. https://doi.org/10.22059/JAPR.2021.82375
- Forrest, D. & Watson, A. (2020). Harnessing the power of music to support humanity in an age of change: An Australian perspective. *International Society for Music education*. 254-260
- Hibbard, G. E. & Walton, D. R. (2017). Exploring adults' emotional intelligence and knowledge of young children's social-emotional competence: A pilot study. *Early Childhood Education Journal*. Springer. DOI: 10.1007/s10643-017-0887-1
- Hill, A., et al. (2019). The measurement of emotional intelligence: A critical review of the literature and recommendations for researchers and practitioners. Frontiers in Psychology. 10. Retrieved from: <a href="https://doi.org/10.3389/fpsyg.2019.01116">https://doi.org/10.3389/fpsyg.2019.01116</a>
- Hulleman, C.S. & Rimm-Kaufman, S. E. (2014). Social and emotional learning in elementary school settings. The University of Virginia. Retrieved from:

https://www.researchgate.net/publication/265966029\_Social\_and\_emotional\_learning\_in\_ \_\_elementary\_school\_settings\_Identifying\_mechanisms\_that\_matter

- Khalilzadeh, S., & Khodi, A. (2018). Teachers' personality traits and students' motivation: A structural equation modeling analysis. Current Psychology. doi:10.1007/s12144-018-0064-8
- Lima, D., Shala, V. & Spahi, J. (2022). The management of emotional intelligence in the workplace impact on improving employee performance. ResearchGate. 23 (188). DOI:10.47750/Qas/23.188.40
- Martinez, C. H. (2020). Exploring the impact of emotional intelligence among leadership development: EQ is the new IQ. ProQuest. Retrieved from: <u>https://www.proquest.com/openview/187d491b923f4bc9eea34db00469050a/1?pq-origsite=gscholar&cbl=18750&diss=y</u>
- McKown, C. (2019). Challenges and opportunities in the applied assessment of student social and emotional learning. Educational Psychologist. 54 (3), 205-221. Routledge: Taylor and Francis, Ltd.
- Morse, T.L. (2021). Perceptions regarding the benefits of social and emotional learning. ProQuest. Lindenwood University. Retrieved from: <u>https://www.proquest.com/openview/062f3eb64266ebc6a6fe4bd154fc0f87/1?pq-origsite=gscholar&cbl=18750&diss=y</u>
- Robert Wood Johnson Foundation. (2017). Preparation for success. Social Emotional Learning in Elementary School.
- Schneider, M. (2022). First steps in social emotional learning technology: the impact of a digital diagnostic assessment on educator social emotional learning development. Dissertation.
- Schonert-Reichl, K. A. (2017). Social emotional learning and teachers. Future of Children. 27
  (1). Retrieved from: <u>https://files.eric.ed.gov/fulltext/EJ1145076.pdf</u>
- Sjolund, M. (2012). Why 'soft skills have become hard and why EQ has moved from 'nice to have to 'necessary to have. Measuring & Developing Emotional Intelligence. Retrieved

from: https://kandidataasia.com/wp-content/uploads/2013/08/EQ-White-Paper-2012-Final.pdf

Stevens, W. (2010). Using emotional intelligence as a leadership strategy to make good leaders great. ProQuest.

Strut Learning.(2022). Welcome to EQ360. Retrieved from: https://myeq360.com/

World Economic Forum (2020). The future of jobs report 2020. Retrieved from: https://www3.weforum.org/docs/WEF\_Future\_of\_Jobs\_2020.pdf