Personal-interpersonal competence assessment: A self-report instrument for student development

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Abstract

The purpose of this paper is to assess the internal consistency of a revised instrument, the Personal-Interpersonal Competence Assessment (PICA); derived from the earlier Social Emotional Development Instrument (SED-I). There were three primary rationales for the revision. First, and most importantly, to better align the operational factors with the conceptual definitions. Second, was to clearly position the construct within the broader context of personal and interpersonal competence, rather than the emotional intelligence literature. Third, to provide a developmental, rather than a diagnostic assessment for personal-interpersonal competence. As with the earlier SED-I model and measure, the intent of the research is to consider the gap in the literature between social emotional learning (targeted at K-12 populations) and subsequent professionalism models (targeted at post-college careers). Although many models and measures use college age populations to assess validity, few directly target models of professional development that higher education students may use to enhance their own development. The intent of this paper, therefore, is to contribute to student development by bridging the gap between social emotional learning and professional skills. Results indicate support for the internal consistency of the instrument. Future studies may examine the validity of the PICA tool as well as the theoretical and practical implications of the PICA model.

This study is an extension of the research found in "Development of a self-report instrument to assess social and emotional development" published in the *Journal of Psychological Issues in Organizational Culture* Volume 2, July 2011.

Keywords: Personal, interpersonal, competence, development, assessment

INTRODUCTION

Over the last thirty years, there have been a variety of theoretical models and measures, originating from the social intelligence literature, that have examined differentiating, personal characteristics that lead to success (Goleman, 1995; Jaeger, 2003; Seal, Naumann, Scott, & Royce-Davis, 2010; Tucker, Sojka, Barone, & McCarthy, 2000). Whether the term is social emotional intelligence, social emotional learning, or simply professional skills, the overlap between these different aspects of soft skills has generated quite a bit of attention and promise. However, despite the increased attention and recognized importance, there is still a gap in the literature regarding the integration of these soft skills for traditional college students. More specifically, there is still a need for measures and methods of intervention that assist students in developing their own personal and interpersonal competence.

Institutions of higher learning are now under increased pressure from stakeholders to demonstrate not just growth in academic knowledge, but also improvement in students' general skill capabilities, and the subsequent career results from a more extensive skill set. Now, more than ever, higher education is being held accountable (right or wrong) to develop the whole student, often working with populations (such as first generation) that may not have the same social and financial resources and acumen of prior generations. Colleges are now tasked with not just exposing students to knowledge, but developing students that can apply knowledge to solve real, practical problems in an increasing complex world.

An earlier attempt to provide a conceptual framework and operational measure to address this need was the Social Emotional Development (SED) model and instrument. SED was a useful first step, however, in subsequent validation it became apparent that a revision was necessary to better align the operational instrument with the conceptual framework. In addition, there were concerns that the name itself, 'social emotional', was misaligning the construct with the related (but distinct) emotional intelligence constructs. Finally, a shift in practice from focusing on levels of social emotional development (how high students were scoring), to patterns of factor interactions (what factors, regardless of raw scores were high and low) to assist in development was needed.

This paper provides an overview and empirical assessment of the revised social emotional development instrument (SED-I), the Personal-Interpersonal Competence Assessment (PICA) that was developed as a potential framework for skill development for students in higher education. The authors examine the underlying literature for the model and provide an overview of the primary results in support of the reliability and structure of the model and the instrument.

LITERATURE REVIEW

Social and Emotional Intelligence

From its beginnings in social intelligence (Thorndike, 1920; Gardner, 1983; Sternberg, 1985), to its later incarnations as emotional intelligence (Bar-On, 1988; Salovey & Mayer, 1990; Goleman, 1995), the concept of social emotional intelligence has helped to popularize and integrate the broad range of emotional traits, abilities, and behaviors (Seal & Andrews-Brown, 2010) that form the foundation of current understandings, measures, and interventions for these various generalized capabilities. Although the construct resonated with scholars and practitioners there was still a need to better understand the framework for social emotional development.

Social Emotional Learning

One such framework, involving a more targeted form of social and emotional learning, has emerged from emotional intelligence research on K-12 students. Social and emotional learning is a term used to describe the process of acquiring affective, behavioral, and cognitive competencies related to: "self-awareness; self-management; social awareness; relationship skills; and responsible decision making" (Collaborative for Academic, Social, and Emotional Learning, 2005). Subsequent research indicates that student proficiency in these areas correlates with higher academic and personal adjustment, whereas students with lower levels of proficiency experienced greater personal, interpersonal, and academic challenges (Eisenberg, 2006; Guerra & Bradshaw, 2008; Masten & Coatsworth, 1998; Weissberg & Greenberg, 1998). Overall, despite the recognized importance, a majority of students are still being assessed as deficient in these critical skill areas. "In a national sample of sixth to twelfth graders, only 29%–45% of surveyed students reported that they had social competencies such as empathy, decision making, and conflict resolution skills" (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Although the social emotional learning literature has expanded our understanding of development, there is still a question of how these concepts resonate with college aged students.

Professionalism

In a similar line of inquiry, a growing body of research has examined the skills that employers deem critical to the success of new employees (i.e. post college graduation). Specifically, employers have ranked soft skills well above technical competence in importance. In a study conducted by the Center for Professionalism in the Workplace (2012), over 1,500 managers ranked the qualities that most characterize professionalism. The results were very similar to social emotional competencies, including interpersonal skills (33%), communication skills (24.9%), and confidence (20.7%). Technical knowledge received the lowest percentage at 9.3%. Despite the perceived importance of soft skills, a gap persists between the targeted programs of social emotional learning (K-12), and the desires of employers for those students post-graduation.

Personal and Interpersonal Competence Assessment

In order to address this gap, various scholars have been exploring soft skill approaches in higher education and their potential impact (Parker, Hogan, Eastabrook, Oke, & Wood, 2006; Riggio, 2010; Seal, Naumann, Scott, & Royce-Davis, 2010). The Personal-Interpersonal Competence Assessment (PICA) is a revised iteration of the Social and Emotional Development (SED) model (Seal, Beauchamp, Miguel, & Scott, 2011) which was devised as a self-assessment tool to better understand the relative relationships between awareness of self, consideration of others, connection to others, and influence orientation (please see Figure 1; Appendix). The measure and model provides a potential pattern of strengths and limitations to assist students in developing learning agendas for future development.

Although the original measure preceding PICA demonstrated acceptable levels of internal reliability, further refinement was needed. In particular, a clearer alignment between the operational and conceptual definitions, as well as the scoring and use of the instrument. In

addition, a conscious effort was made to move beyond the language of emotional intelligence, and to position the model more firmly into the broader category of soft skills that help to differentiate student success in education, relationships, and career.

Personal-interpersonal competence is the increase in emotional knowledge capacity and social behavioral options to achieve desirable, sustainable outcomes. Personal-interpersonal competence assessment is the identification of personal capacity to manage environmental challenges, and subsequently provide guidance to increase current capacity. The model's four factors include the following: (1) self-awareness – knowledge and understanding of your emotions and talents; (2) consideration of others – regard for the person and situation before thinking and acting; (3) connection to others – ease and effort in developing rapport and closeness with others; and (4) influence orientation – propensity to seek leadership opportunities and move others toward change. Ideally, students who develop their capacity to understand themselves, consider the world around them, build meaningful relationships, and foster positive changes will have an advantage in meeting academic, relational, and career challenges. The model and assessment are designed for use by students and educators to help understand potential areas of strength and development. As an initial step in evaluating the new instrument, is to assess the internal consistency and principal components to provide support for the reliability and factor structure of the measure.

METHOD

Participants

Over the course of seven academic quarters, from fall 2011 to spring 2013, 483 undergraduate and graduate students in an organizational behavior course participated in the study. Out of 483 students, 455 completed the survey, and of those 416 had completed all the other data requirements and were included in the final analysis. Of the participants included, 82% are undergraduate and 87% are full-time enrolled students. Participants ranged between the ages of 18 and 55, with a mean age of 24.7 and a standard deviation of 5.79. Participants are 50% (241) female, 44% (214) male, and the remainder unspecified. The ethnic makeup of the sample is 38% Hispanic, 29% White/Non-Hispanic, 18% Asian/Pacific Islander, 9% African American, and 1% Native American. Demographics by field of study are 20% Management, 15% Accounting, 15% Marketing, 9% Nutrition, 6% Finance, 6% Information Science, 5% Health Science, and the remaining 24% is distributed throughout 17 fields of concentration with no one group having more than 2.5%.

Measure

The 32-item PICA is a student-centric survey instrument for personal and interpersonal competence that replaces the original 48-item Social Emotional Development inventory (SED-I). From its student focus group origins, which yielded over 1,000 items, to its current iteration, the survey emphasizes a collaborative effort by students, faculty, staff, and administrators in interdisciplinary fields across three campuses in an attempt to produce a reliable guide for student development.

Each of the four PICA model factors (awareness, consideration, connection, and influence), is represented by eight items on the assessment instrument. The original measure

contained reversed scored items which have been removed to enhance the scoring process, as reverse scoring select items did not enhance reliability and hindered scoring and discussion of results with participants. In practice, the instrument takes about 15 minutes to complete.

The PICA asked students to report the frequency of various social and emotional behaviors, traits, and indicators, using a 9-point Likert scale (1-*never*, 2-*very rarely*, 3-*rarely*, 4-*somewhat rarely*, 5-*sometimes*, 6-*somewhat often*, 7-*often*, 8-*very often*, and 9-*always*). The first set of items (1-16) are part of the connection and influence factors and prompt the students to predict what their friends would say about them for the items. The second set of items (17-32) are part of the awareness and consideration factors and prompt the students to indicate how often a statement is true of them. Factor scores are derived by adding the items for each factor and a total score is derived by adding the factor scores together. A list of the questions, responses, and factors appear in Table 1 (Appendix).

RESULTS

To assess the viability of the PICA instrument, a series of analyses were run on the data, including data screening, internal consistency assessment, and principal component analysis.

Data Screening

Using data screening, 14 cases were removed from the previous 416 sample in which complete data was available, leaving a remainder of 402 valid participants for subsequent analysis. The multivariate outliers criteria included z score > 4.00 with a Mahalanobis distance greater than 90 ($p < .00001$).

Internal Consistency

Cronbach's coefficient alpha was run on the untransformed scores to assess internal consistency (total score and factor reliability). The total score alpha of .88 indicates good internal consistency. The factor alphas were .77 (awareness), .78 (connection), .82 (consideration), and .89 (influence), indicating acceptable internal consistency for each 8-item factor.

Principal Components Analysis

To confirm the appropriate number of factors, a principal components analysis (PCA) was conducted. Since the authors expected the analysis to support the hypothesized correlated four-factor model, Direct Oblimin rotation with delta set at zero (Quartimin rotation) was employed. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .86, indicating that the correlation matrix was factorable.

The PCA was run using the untransformed scores for the 32 items and seven factors were extracted (accounting for 58.7% of the variance). The elbowing points in the scree plot occurred between the 4th and 5th components, with 46.9% of the variance accounted for by the first four components (all with eigenvalues > 1.0).

The PCA was repeated with the reflected square root transformed data and with a reflected log (base 10) transformed data set. In addition, an orthogonal (varimax) and another oblique rotation (promax) were employed. Oblique rotations (in contrast to the orthogonal)

reduced the number of complex items (loading substantially on two or more components) to zero. There was little difference in outcomes (percent of variance explained, pattern coefficients, etc.) between the three data sets with each rotation procedure.

DISCUSSION

In this paper, the authors presented an empirical assessment of a social emotional assessment model, called the Personal-Interpersonal Competence Assessment (PICA) that was developed specifically for students in higher education to provide a potential framework for skill development. The PICA was created as a self-assessment tool for students in higher education to provide a framework for social skill development which are critical for future professional success. The results of the study were promising, suggesting acceptable levels of internal consistency and an appropriate component analysis for each of the four 8-item factors used in the instrument. Thus, there is support for the use of the PICA to assists students in recognizing their strengths and identifying areas that can be further developed.

Given the gap in the social and emotional intelligence literature between social and emotional learning at the K-12 level, and professionalism at the post-graduation level, the PICA model and measure provides a potential bridge between the two bodies of research. In addition, with greater calls for assessing the impact of higher education from employers, parents, accreditors, and other stakeholders, having the opportunity to assess and target these critical soft skills provides a competitive advantage for colleges and students.

Limitations

Although the instrument demonstrates adequate internal consistency, there are several significant limitation that would need to be addressed in future studies. The first limitation is the generalizability of the results, since the sample is limited to college students at one, mid-sized, public institution on the west coast. Although the prior SED-I instrument has been tested on other populations, including international samples, continued sampling of the revised instrument is needed. The second limitation is the inherent bias on self-report measures in general. Although attempts to minimize that bias, by asking questions sets on what others would say about you, as well as a focus on patterns of scores, rather than absolute scores, are included; the fact remains that self-report is not necessarily indicative of actual results. The third limitation concerns the validity of the measure and the utility of the underlying model. Does the instrument adequately encompass the model, does the instrument have appropriate relationships to related instruments, and is the model of value in student development? All of these limitations, in particular the question related to validity and utility would need to be addressed in future studies.

Conclusion

Over the years, the importance of personal-interpersonal competence (regardless of the source term), has been demonstrated through multiple studies (Boyatzis, Stubbs, & Taylor, 2002; Seal, Boyatzis, & Bailey, 2006). However, most models have focused on either K-12 development or post-graduation competence demonstrations. What is needed is a framework and assessment that is targeted to the unique development challenges and opportunities of college students. Given the accountability environment of college form accreditors, governments,

parents, students, and other stakeholders, it critical for universities to continue to incorporate high impact practices that enrich the whole student, not just academic knowledge. As we have seen with the importance of social emotional learning as well as professional skills, the underlying social and emotional competences are critical for student success in school, in their personal lives, and in their professional careers.

The current paper discusses one such model and measure, the Personal-Interpersonal Competence Assessment (PICA) which may help students and institutions to better illustrate potential development strengths and limitations. As evidenced in the paper, the analysis indicates the PICA instrument has an appropriate factor structure, internal consistency, and reliability to provide insights into student strengths and weaknesses to help guide development. The hope is to continue the focus on the importance of soft skill development for students in particular, and to contribute to the growing theoretical and empirical literature on student development in general. After thirty years of research, it is safe to say, that students who expand their personal and interpersonal capacity will be at distinct advantage in life; as will those institutions who incorporate best practices to assist that capacity development.

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APPENDIX

Figure 1 – Personal-Interpersonal Competence Model

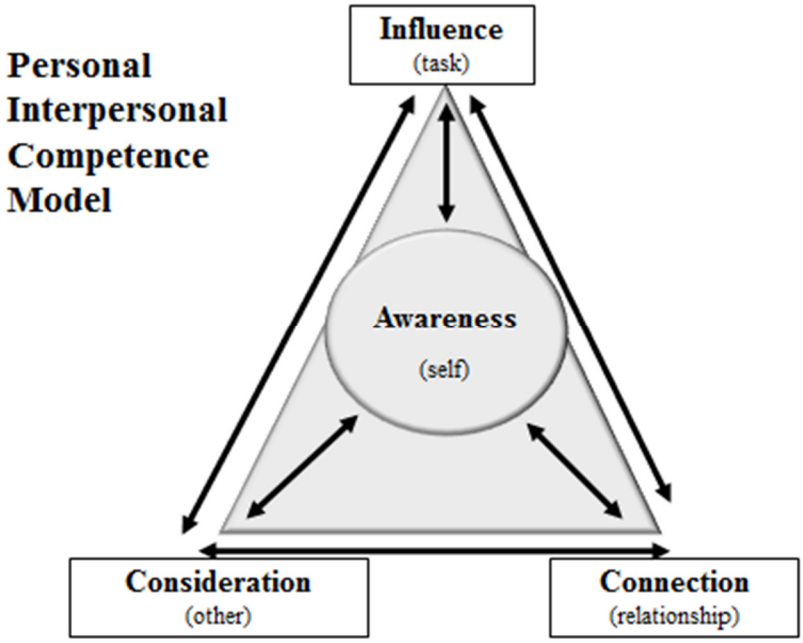

Table 1 – PICA Items, Factors, and Sub-Factors

Item	For each statement, please predict how often your FRIENDS would say that statement is true of you	Factor
Q01	People share their feelings with him/her	Connection
Q02	She/he ends up being the leader	Influence
Q03	She/he takes the lead role	Influence
Q04	She/he makes an effort to start friendships	Connection
Q05	She/he influences others	Influence
Q06	She/he is comfortable meeting new people	Connection
Q07	She/he stays in regular contact with his/her friends	Connection
Q08	She/he is confident leading others	Influence
Q09	She/he is trustworthy	Connection
Q10	She/he is the decision maker of the group	Influence
Q11	She/he enjoys taking charge of groups	Influence
Q12	She/he shares his/her feelings and thoughts with friends	Connection
Q13	People come to him/her when they are upset	Connection
Q14	She/he can persuade others to do what he/she wants	Influence
Q15	She/he has many close friends	Connection
Q16	She/he motivates others to perform	Influence
Item	**For each statement, please indicate how often YOU think that statement is true of you**	**Factor**
Q17	I know what I want	Awareness
Q18	I know what makes me angry	Awareness
Q19	I think about how others will respond	Consideration
Q20	I know when I am upset	Awareness
Q21	I know my strengths	Awareness
Q22	I think before speaking	Consideration
Q23	I know what I like to do	Awareness
Q24	I consider another person's perspective before acting	Consideration
Q25	I know what makes me afraid	Awareness
Q26	I am aware of my surroundings	Consideration
Q27	I know what makes me cry	Awareness
Q28	I can tell how others are feeling	Consideration
Q29	I know my weaknesses	Awareness
Q30	I understand the different viewpoints of others	Consideration
Q31	I consider the beliefs of others	Consideration
Q32	I value opinions that are different from my own	Consideration