Social Emotional Learning and its framework for Technology Education

Virginia R. Jones, Old Dominion University
vrjones@odu.edu
Daniel L. Trent, Bluefield State University
dtrent@bluefieldstate.edu

ABSTRACT

Social Emotional Learning (SEL) is a key construct for engagement in technology education learning at the undergraduate level. The sample population for this applied research study is two higher education institutions, one located in the Mississippi Delta with a predominately homogenous population of rural, African American students and the other in West Virginia, with a predominant population of rural Caucasian students. The students were enrolled in technology education-based courses and participated in the research study survey to assess their social emotional learning and their overall college success and engagement. The findings of this very limited sample size showed that undergraduate students failed to connect the importance of social emotional skills especially empathy and social awareness with academic success. Students tended to rank themselves highly in academic based categories even when their academic GPA did not reflect that rigor. All students ranked themselves low in awareness of others' emotions and especially awareness of their faculty's perspectives.

Key Words: diversity, social emotional learning, engagement, self-efficacy

1. INTRODUCTION

This study reviewed the social emotional learning aptitudes of early college students, defined as undergraduates, at two diverse U.S. higher learning universities located in different geographical regions of the United States. The purpose of the research study was to determine if a high level of social emotional learning skills was consistent with a higher overall academic GPA as supported by numerous research studies and literature (CASEL, n.d.; OECD, 2021; Panorama, n.d.). The research problem was: Did early college students equate their social emotional skills with their academic achievement in college? The research questions were:

- RQ1: Is there a relationship between students' SEL self-reports and their university academic standing?
- RQ2: Do students accurately assess their SEL levels when self-reporting?

The first university, identified as a Historically Black University (HBCU) is in the state of Mississippi, in the southern part of the United States, and the second university is in West Virginia, still geographically considered a southern state, and is classified as an HBCU but is one of the few in this classification that is a predominately white institution (PWI). The students from both universities were enrolled in technology education-based courses during the spring 2023 semester and participated in the research survey pertaining to Social emotional learning (SEL).

This study focused on technology education-based classes to address and contribute to SEL development for future learning and success. Students were administered the survey to self-assess their SEL skills. Data was obtained from each respective institute for students' cumulative grade point average (GPA). The researchers analysed the self-assessment scores and the students' GPAs to determine if there is a relationship between their self-assessment and academic success. Research showed that 67% of the abilities needed for successful STEM and technology education learning are based on the learners' emotional learning levels (SEL). This study presents research on two HBCU undergraduate cohorts to examine their SEL levels compared to their current academic grade point average. The focus areas in this study's student survey included the following five core social emotional learning competencies:

- self-awareness – recognizing emotions, strengths, and limitations.
- self-management - regulating emotions, thoughts, and behaviours.
- social awareness – understanding and empathising with others.
- relationship skills – developing and maintaining relationships, communication, cooperation, and conflict resolution.
- responsible decision making – constructive choices based on ethical considerations, social norms, and personal values (SSIS CoLab, 2020).

Social and emotional skills are ones' abilities to regulate thoughts, emotions, and behaviour. These skills help one adjust to their environment and form the patterns one uses in all human activities especially in learning new tasks whether in formal or informal settings (OECD, n.d.; Darling-Hammond, et al, 2020). Research about social-affective neuroscience study of the brain supported that the DMN (default mode network) is key to engagement concerning task orientation such as persistence in classroom exercises as well as providing a personal relevance for the learner (Immordino-Yang, 2016). She further postulates that "students' achievement depends on social-emotional factors and executive control…and which aspect of their identity is salient to them in the current social-emotional context" (p. 212). The researchers believe a strong SEL attachment to the learning process promotes the use of this DMN network. SEL based learning supports technology education where students experience hands-on learning with a focus on reflections on personal learning, relevance to their circumstances, and achievement (Immordino-Yang, 2016). Prioritizing SEL while learners are beginning their post-secondary education requires an investment in crucial educational learning opportunities for under-represented populations. These skills are promulgated by the Standards for Technological and Engineering Literacy (STEL) in their practices for employing technology education successfully in different contexts (ITEEA, 2020). Research upheld that a high level of SEL skills is required in technology education particularly skills such as "remaining calm, flexible and realistic" when dealing with classroom pressure (Yekinni & Ogbuanya, 2022, p. 12). Yekinni and Ogbuanya (2022) further assert that

having high EL skills has a "positive relationship with teamwork, skills, team harmony, effectiveness and performance" for the student (p. 13). Grubbs et al., (2018) stress that engineering habits of mind, habits students should develop, include many SEL skills such as communication, creativity, collaboration, and ethical considerations.

Engagement of all learners requires an emotional connection to the content and brain research supports emotions that are consistent across all cultures supporting the need for educators to encourage SEL learning as a methodology to provide the learners with content that reflects their lived experience.

Social and emotional skills are shaped by many facets of one's life such as families, peers, educational settings, life events, and individual actions (OECD, 2021). Further the data from the OECD survey (2021) supports that "age, gender, socio-economic status and migration background" are fundamental to development of strong SEL skills (p. 44). Social emotional skill development is consistent with the contemporary knowledge of social and emotional skills as characteristics and abilities that are changeable and react, either growing or decreasing, along with the person's biological and psychological changes, influences from the environment around the person. OECD's data, based on primary and secondary school students, is transferrable to early college study as it promoted that SEL skills are a strong predictor for school performance. These indicators are data driven and indicate that students with similar socio-economic backgrounds have different post-secondary education expectations, and that SEL skills are linked to students' career aspirations (OECD, 2021). The research further posited that across data points from participating cities, "the proportion of students who held high expectations for further education was related to how they portrayed their own social and emotional skills (OCED, p. 74). The BTAE (Better than average effect) theory is a strong consideration in this research as it supports that self-ranking has inherent bias of self-enhancement especially in social comparisons (Brown, 2012).

Floricica and Mihai's research (2020) also asserts non-cognitive abilities show a positive correlation to personality traits. The research also states personality traits are a combination of emotional, motivational, and cognitive skills in humans. Considering the tie between SEL, academic, and well-being, there is an urgent obligation to promote *deeper learning* which consists of collaborative, communal activities. This deeper learning develops transferable knowledge for the learner allowing them to understand the learning domain as well as how, why, and when in applying the knowledge. This product of deeper learning is a blend of knowledge (cognitive, academic) and skills (social emotional learning) to produce *21st century competencies'* (National Research Council, 2012).

Literature also asserted that one obstacle in evaluating and comparing SEL skills and their resultant comparisons on the cognitive proficiencies and economic outcomes (workforce attainment in life) is the sparsity of standardized instruments that are validated and reliable to measure these noncognitive aptitudes. As in this study, most noncognitive proficiencies are measured by ranking or rating schemes rather than a test instrument. Most surveys that rank these abilities are either self-rated or by observation such as by teachers or others in the educational setting (National Research Council, 2012). According to research, the European Commission has

begun investigating how to best assess how noncognitive abilities and personality traits commingle with workplace success (Brunello & Schlotter, 2011).

2. METHODOLOGY

The researchers used a publicly available free survey from Panorama education. Although the survey was specifically designed for learners in grades 3-5 and grades 6-12, the researchers felt the questions were still applicable to undergraduate students and would provide a strong measure of their SEL while starting their higher education journey. The survey measured student competencies specifically in the areas enumerated below:

- Grit
- Growth mindset
- Self-management
- Social Awareness
- Self-efficacy
- Learning Strategies
- Classroom effort
- Social Perspective-taking
- Self-efficacy about specific subjects
- Emotion regulation (Panorama, n.d. p. 6)

Students were given the survey in their Computer Aided Manufacturing and Machine Elements II classes at Bluefield State University (BSU) and in their Computer Aided Drafting and Design (CADD) Applications II and Introduction to Architecture classes at Mississippi Valley State University (MSVU). Fifteen students from Bluefield State participated, of which 12 were male and three were female. Nine students from Mississippi Valley State participated in the survey of which seven were male and two were female.

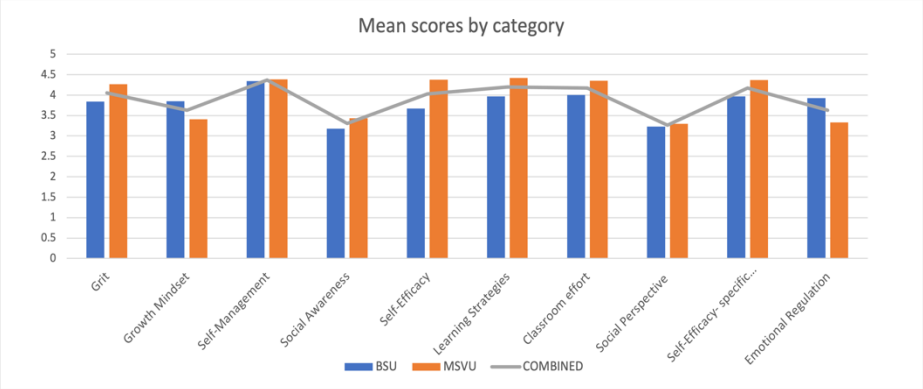
The instrument used was the Panorama Social-Emotional Learning Survey, specifically the student competencies survey (Panorama, n.d.). The Grit section contained five questions and were ranked on a Likert scale of 1 – almost never to 5 – almost always, extremely focused, or a variation. The Growth mindset section contained six items asking about the ability to change the items. The rankings were a Likert scale of 1 – not at all possible to change to 5 – completely possible to change. The Self-management section asked *During the past 30 days…* with 10 statements ranked from 1 – almost never to 5 – almost all the time. Social awareness also asked *During the past 30 days…* with eight statements ranked from 1 – not carefully at all, did not care at all, did not get along at all, not all clearly, not at all respectful, not at all to 5 – extremely carefully, cared a tremendous amount, almost all the time, got along extremely well, extremely clearly, and tremendous amount. Self-efficacy section had five questions with Likert scale rankings from 1 – not at all confident to 5 – extremely confident. Learning strategies section contained five questions with rankings from 1 – not at all likely, not at all confident, almost never, not well at all, almost never to 5 – extremely likely, extremely confident, almost always, and

extremely well. The next section on classroom effort contained five questions with responses ranked from 1 – almost no effort to 5 – a great deal of effort. The next section was Social Perspective-taking with six questions ranked from 1- not hard at all, almost no effort, not at all, not hard at all to 5- extremely hard, a tremendous amount of effort, extremely hard. An additional self-efficacy section was utilized asking self-efficacy about their specific technology and engineering education courses. There were six questions ranked from 1 – not at all confident to 5 – extremely confident. The section on emotion regulation contained six questions with response ranking from 1- not easily at all to 5 – extremely easily. The survey is attached in Appendix A.

3. RESULTS

The overall Grade Point Average (GPA) for students from Bluefield State University was 3.39 while the overall GPA for Mississippi Valley State University students was 3.20. The average grade for the technology education course in which the students were enrolled, based on a 4-point scale, was 3.40 for BSU and 2.89 for MVSU. Overall mean scores for each of the ten categories reported were computed for each school and a combined average was calculated.

Figure 1
Overall mean scores for each category and combined average



MVSU students scored themselves highest in learning strategies (4.42) indicating they believe they used deliberate actions to manage their learning process. They also reported scores over 4.0 on a 5-point scale for grit (4.27 revealing they felt they were able to persevere through setbacks to achieve their educational goals, self-management (4.39) controlling their emotions, thoughts and behaviors in various situations, self-efficacy (4.38), classroom effort (4.35) showed they felt the effort was quite a bit for their academics, and self-efficacy about specific subjects (4.37) implying they felt they could succeed in the technology education courses. A lower rating for a growth mindset (3.41) indicated students believed they had no ability to change factors crucial to their educational performance. Interestingly, the students rated themselves low on social

awareness (3.43) denoting a lack of connection with others and their perspectives (a lack of empathy). Concurrently, they rated themselves low on social perspective taking (3.30) again signifying a lack of an empathetic connection with the teacher's (professor) and the classroom environment. Not surprisingly, the students rated 3.33 on emotional regulation indicative of an undeveloped system of understanding how to adjust and control their emotions.

BSU students scored themselves highest in self-management (4.34). They rated themselves at a 4.00 score for effort. The remaining categories were below the score of 4.00 with grit (3.84), self-efficacy about specific subjects (3.93), growth mindset (3.85) learning strategies (3.97), and emotional regulation (3.93) are just below the 4.0 mark. This is significant as one student did not answer all questions which skewed the final overall averages on these categories. For BSU, the students ranked themselves lowest on social awareness (3.18) and social perspective taking (3.22) scoring which is consistent with undeveloped social emotional skills (empathy) but ranked higher on emotional regulation (3.93) denoting an awareness of other's emotions and perspectives.

BSU students self-reported lower scores than MVSU students in every category except growth mindset (BSU = 3.85, MVSU = 3.41). This is contradictory to the overall grade point averages attained by each group (BSU = 3.39, MVSU = 3.20) and the course grades (BSU = 3.40, MVSU = 2.89).

Students with an overall GPA of 3.50 or higher from each school (BSU had eight students out of 15 [53.30%], MVSU had two students out of nine [22.22%]) reported identical mean scores of 4.10 in the grit category. Three students from each school had overall GPA scores below 3.00. The MVSU students with lower GPAs reported almost the same mean score for grit (4.13) as their higher performing counterparts. The BSU students with lower GPAs reported a mean grit score of 3.40.

4. DISCUSSION

The results indicate students' self-rankings were overstated based on their course and overall grade averages. There is no way to determine the basis for overestimated rankings although it can be hypothesized that some lack the ability to accurately assess their ability to perform academic tasks and succeed in their coursework. It appears from this research that students with lower overall GPA scores have overstated views of their social and emotional skills. It also appears that higher performing students (based on their GPAs) may under report these skills.

These findings, although from a very limited sample, are consistent with literature stating that self-reported Social Emotional learning skills are fraught with inaccuracies and can present false ratings. The results do indicate a strong lack of understanding emotional and social connectiveness needed for academic success. Research has shown students attribute success to their own abilities or intelligence and failure is due to someone or something else outside of their control (Karpen, 2018). Karpen further stated, "weak correlations between self-assessment and performance demonstrate that people misestimate their abilities" (para. 4). Dunning, et al. (2004) asserted that self-assessments are flawed as oneself view is only marginally related to their actual behaviors (social-emotional constructs) and performance. These characteristics are

termed the *BTAE* (Better than average effect) and account for the discrepancies in this research versus the actual academic performance of the students.

5. CONCLUSION

The research study sought to determine if a high level of social emotional learning skills was consistent with a higher overall academic GPA as supported by numerous research studies and literature (CASEL, n.d., OECD, 2021, Panorama, n.d.). The research problem was: Did early college students equate their social emotional skills with their academic achievement in college? The research questions were:

- RQ1: Is there a relationship between students' SEL self-reports and their university academic standing?
- RQ2: Do students accurately assess their SEL levels when self-reporting?

The survey data showed early college students' self-assessment for social and emotional learning was skewed with either over confidence in a SEL ability or under-estimating their ability on SEL survey. Due to the small sample sizes, 15 and nine students from each university's technology education courses, the researchers were unable to perform any statistical measures to determine if there is a correlation between students social emotional learning skills and their overall college GPA.

This survey data will assist educators in understanding the link between SEL and academic performance, as well as students increased social competence. It is vital that all involved in education understand the importance of SEL to foster students' holistic development. The instrument used was developed for upper-level secondary students and in this study ranked by undergraduates in higher education which may account for their overzealous assessments of their social skills. The study should be repeated using a more tailored instrument and a larger sample size.

6. REFERENCES

Bluefield State University (2021). *Student profile analysis report fall 2021*. https://bluefieldstate.edu/sites/default/files/userfiles/institutionalresearch/Student%20Profile%20Analysis%20Report_Fall%202021%20Census.pdf

Brown, J. D. (2012). Understanding the better than average effect: Motives (still) matter. *Personality and Social Psychology Bulletin, 38*(2), 209–219. 10.1177/0146167211432763.

Brunello, G. & Schlotter, M. (2011, May). *Non cognitive skills and personality traits: Labour market relevance and their development in education & training systems*. [Discussion paper 5743]. IZA, Bonn, Germany. https://docs.iza.org/dp5743.pdf.

Collaborative for Academic, Social, and Emotional Learning (CASEL) (n.d.). *The benefits of SEL*. https://casel.org/fundamentals-of-sel/what-does-the-research-say/#benefits

Costa, A.L. & Kallick, B., (2008, November 30). *Learning and leading with habits of mind*. Association for Supervision and Curriculum Development.

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B. & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science, 24*(2), 97-140. DOI: 10.1080/10888691.2018.1537791

Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest, 5*(3), 69- 106. https://doi.org/10.1111/j.1529-1006.2004.00018.x

Karpen S. C. (2018). The social psychology of biased self-assessment. *American Journal of Pharmaceutical Education, 82*(5), 6299. https://doi.org/10.5688/ajpe6299

Floricica, C., & Mihai, R. (2020). Identifying the relationships between personality traits and non-cognitive skills. *Technium Social Sciences Journal, 4*, 94-106.

Grubbs, M. E., Strimel, G. J., & Huffman, T. (2018). Engineering education: A clear content base for standards. *Technology and Engineering Teacher, 77*(7), 32-38.

Immordino-Yang (2016, June 29). Emotion, sociality, and the brain's default mode network: Insights for educational practice and policy. *Policy Insights from the Behavioral and Brain Sciences, (3)* 2, 211-219. https://doi.org/10.1177/2372732216656869

International Technology and Engineering Educators Association. (2020). *Standards for technological and engineering literacy: The role of technology and engineering in STEM education*. https://www.iteea.org/STEL.aspx

Mississippi Valley State University (2022). *Fall 2022 student profile*. https://www.mvsu.edu/sites/default/files/fall_2022_enrollment_profile_0.pdf

National Research Council. (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. Washington, DC: The National Academies Press. https://doi.org/10.17226/13398

OECD. (2021). *Beyond academic learning: First results from the survey of Social and Emotional Skill*s. OECD Publishing, Paris. https://doi.org/10.1787/92a11084-en

OECD (n.d.) *Social and emotional skills: Well-being, connectedness and success.* OECD Publishing. https://www.oecd.org/education/school/UPDATED%20Social%20and%20Emotional%20Skills%20-%20Well-being,%20connectedness%20and%20success.pdf%20(website).pdf

Panorama Education (n.d.). *User guide: Panorama social-emotional learning survey*. https://panorama-www.s3.amazonaws.com/files/sel/SEL-User-Guide.pdf?__hstc=17850406.5309c9a103aaa5cdcea7a6d49905d5dd.1684805650819.1684805650819.1684805650819.1&__hssc=17850406.1.1684805650819&__hsfp=3173477478&hsCtaTracking=78286a36-b5ad-4eb3-bf77-fe44ea819486%7Cd1a167f1-c1c1-4119-97b1-081f1aa419d4

SSIS CoLab (2020.) *SSIS SEL brief scales: Scores, scoring, & report interpretation guide*. https://cdn10.ssiscolab.com/wp-content/uploads/2020/09/SSIS-SEL-Score-Report-Guides.pdf

Yekinni, S.A., & Ogbuanya, T.C., (2023, February 8). Advancing the emotional intelligence ability of technology education students for socio-behavioral adjustment. In Rodriguez, F.M.M. (Ed.). New insights into Emotional Intelligence (1st ed., pp.9-33). InTechOpen. https://doi.org/10.5772/intechopen.98098

7. APPENDIX A

7.1. Item A

Student Competencies

Grit — *Recommended*

How well students are able to persevere through setbacks to achieve important long-term goals.

Question	Response Options				
How often do you stay focused on the same goal for several months at a time?	Almost never	Once in a while	Sometimes	Frequently	Almost always
If you fail to reach an important goal, how likely are you to try again?	Not at all likely	Slightly likely	Somewhat likely	Quite likely	Extremely likely
When you are working on a project that matters a lot to you, how focused can you stay when there are lots of distractions?	Not at all focused	Slightly focused	Somewhat focused	Quite focused	Extremely focused
If you have a problem while working towards an important goal, how well can you keep working?	Not well at all	Slightly well	Somewhat well	Quite well	Extremely well
Some people pursue some of their goals for a long time, and others change their goals frequently. Over the next several years, how likely are you to continue to pursue one of your current goals?	Not at all likely	Slightly likely	Somewhat likely	Quite likely	Extremely likely

7.2. Item B

Growth Mindset — *Recommended*
Student perceptions of whether they have the potential to change those factors that are central to their performance in school.

Question	Response Options				
Whether a person does well or poorly in school may depend on a lot of different things. You may feel that some of these things are easier for you to change than others. In school, how possible is it for you to change:					
Being talented	Not at all possible to change	A little possible to change	Somewhat possible to change	Quite possible to change	Completely possible to change
Liking the subjects you are studying	Not at all possible to change	A little possible to change	Somewhat possible to change	Quite possible to change	Completely possible to change
Your level of intelligence	Not at all possible to change	A little possible to change	Somewhat possible to change	Quite possible to change	Completely possible to change
Putting forth a lot of effort	Not at all possible to change	A little possible to change	Somewhat possible to change	Quite possible to change	Completely possible to change
Behaving well in class	Not at all possible to change	A little possible to change	Somewhat possible to change	Quite possible to change	Completely possible to change
How easily you give up	Not at all possible to change	A little possible to change	Somewhat possible to change	Quite possible to change	Completely possible to change

7.3. Item C

Self-Management — *Recommended*
How well students manage their emotions, thoughts, and behaviors in different situations.

Question	Response Options				
During the past 30 days...					
How often did you come to class prepared?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often did you follow directions in class?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often did you get your work done right away, instead of waiting until the last minute?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often did you pay attention and resist distractions?	Almost never	Once in a while	Sometimes	Often	Almost all the time
When you were working independently, how often did you stay focused?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often did you remain calm, even when someone was bothering you or saying bad things?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often did you allow others to speak without interruption?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often were you polite to adults?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often were you polite to other students?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How often did you keep your temper in check?	Almost never	Once in a while	Sometimes	Often	Almost all the time

7.4. Item D

Social Awareness — *Recommended*

How well students consider the perspectives of others and empathize with them.

Question	Response Options				
During the past 30 days...					
How carefully did you listen to other people's points of view?	Not carefully at all	Slightly carefully	Somewhat carefully	Quite carefully	Extremely carefully
How much did you care about other people's feelings?	Did not care at all	Cared a little bit	Cared somewhat	Cared quite a bit	Cared a tremendous amount
How often did you compliment others' accomplishments?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How well did you get along with students who are different from you?	Did not get along at all	Got along a little bit	Got along somewhat	Got along pretty well	Got along extremely well
How clearly were you able to describe your feelings?	Not at all clearly	Slightly clearly	Somewhat clearly	Quite clearly	Extremely clearly
When others disagreed with you, how respectful were you of their views?	Not at all respectful	Slightly respectful	Somewhat respectful	Quite respectful	Extremely respectful
To what extent were you able to stand up for yourself without putting others down?	Not at all	A little bit	Somewhat	Quite a bit	A tremendous amount
To what extent were you able to disagree with others without starting an argument?	Not at all	A little bit	Somewhat	Quite a bit	A tremendous amount

7.5. Item E

Self-Efficacy — *Recommended*

How much students believe they can succeed in achieving academic outcomes.

Question	Response Options				
How confident are you that you can complete all the work that is assigned in your classes?	Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident
When complicated ideas are presented in class, how confident are you that you can understand them?	Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident
How confident are you that you can learn all the material presented in your classes?	Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident
How confident are you that you can do the hardest work that is assigned in your classes?	Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident
How confident are you that you will remember what you learned in your current classes, next year?	Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

7.6. Item F

Learning Strategies — *Supplemental*
How well students deliberately use strategies to manage their own learning processes generally.

Question	Response Options				
When you get stuck while learning something new, how likely are you to try a different strategy?	Not at all likely	Slightly likely	Somewhat likely	Quite likely	Extremely likely
How confident are you that you can choose an effective strategy to get your schoolwork done well?	Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident
Before you start on a challenging project, how often do you think about the best way to approach the project?	Almost never	Once in a while	Sometimes	Frequently	Almost always
Overall, how well do your learning strategies help you learn more effectively?	Not well at all	Slightly well	Somewhat well	Quite well	Extremely well
How often do you use strategies to learn more effectively?	Almost never	Once in a while	Sometimes	Frequently	Almost always

7.7. Item G

Classroom Effort — *Supplemental*
How much effort students put into school and learning.

Question	Response Options				
How much effort do you put into getting involved in discussions during class?	Almost no effort	A little bit of effort	Some effort	Quite a bit of effort	A great deal of effort
When your teacher is speaking, how much effort do you put into trying to pay attention?	Almost no effort	A little bit of effort	Some effort	Quite a bit of effort	A great deal of effort
How much effort do you put into your homework for this class?	Almost no effort	A little bit of effort	Some effort	Quite a bit of effort	A great deal of effort
Overall, how much effort do you put forth during this class?	Almost no effort	A little bit of effort	Some effort	Quite a bit of effort	A great deal of effort
How much effort do you put into learning all the material for this class?	Almost no effort	A little bit of effort	Some effort	Quite a bit of effort	A great deal of effort

7.8. Item H

Social Perspective-Taking — *Supplemental*
The extent to which students consider the perspectives of their teachers. *Please note that this measure OPTOis only available for students in Grades 6-12.*

Question	Response Options				
How hard do you try to understand your teachers' point of view?	Not hard at all	Slightly hard	Somewhat hard	Quite hard	Extremely hard
During class, how hard do you try to understand what your teachers are feeling?	Not hard at all	Slightly hard	Somewhat hard	Quite hard	Extremely hard
Overall, how much effort do you put into figuring out what your teachers are thinking?	Almost no effort	A small amount of effort	Some effort	Quite a bit of effort	A tremendous amount of effort
How much effort have you put into figuring out what your teachers' goals are?	Almost no effort	A small amount of effort	Some effort	Quite a bit of effort	A tremendous amount of effort
How much do you try to understand your teachers' motivation for doing different classroom activities?	Not at all	A little bit	Somewhat	Quite a bit	A tremendous amount
When your teachers seem to be in a worse mood than usual, how hard do you try to understand the reasons why?	Not hard at all	Slightly hard	Somewhat hard	Quite hard	Extremely hard

7.9. Item I

Emotion Regulation — *Supplemental*
How well students regulate their emotions.

Question	Response Options				
When you are feeling pressured, how easily can you stay in control?	Not easily at all	Slightly easily	Somewhat easily	Quite easily	Extremely easily
How often are you able to pull yourself out of a bad mood?	Almost never	Once in a while	Sometimes	Frequently	Almost always
When everybody around you gets angry, how relaxed can you stay?	Not relaxed at all	Slightly relaxed	Somewhat relaxed	Quite relaxed	Extremely relaxed
How often are you able to control your emotions when you need to?	Almost never	Once in a while	Sometimes	Frequently	Almost always
Once you get upset, how often can you get yourself to relax?	Almost never	Once in a while	Sometimes	Frequently	Almost always
When things go wrong for you, how calm are you able to remain?	Not calm at all	Slightly calm	Somewhat calm	Quite calm	Extremely calm