THE ACHIEVEMENT MOTIVATION ENHANCEMENT MODEL: EVALUATING AN AFFECTIVE INTERVENTION TO RESOLVE UNDERACHIEVEMENT
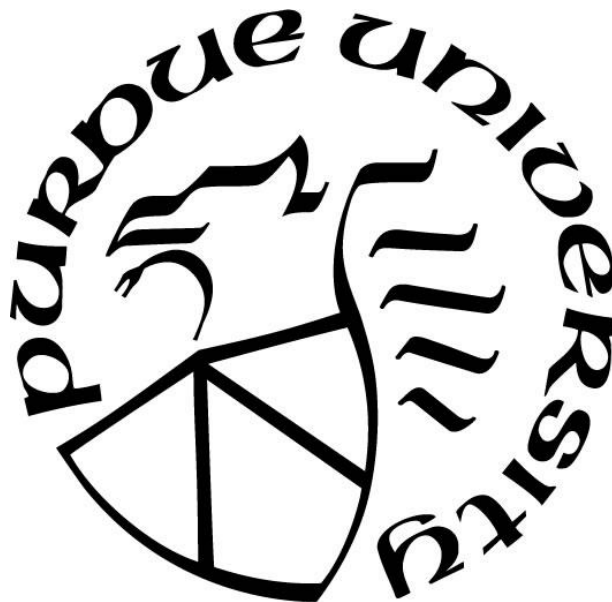
by

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If you are determined to learn, no one can stop you.

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ABSTRACT

This dissertation investigated an affective curriculum intervention's effectiveness in resolving underachievement. The intervention was first implemented at a summer program with 20 students and four camp counselors. Inductive analysis of qualitative data indicated that most participants had positive perceptions of the model. Descriptive analyses indicated the intervention had small, positive effects on students' academic self-perceptions ($MD = 0.122$, $SD = 0.621$, $d = 0.196$) and attitudes toward teachers ($MD = 0.139$, $SD = 0.848$, $d = 0.164$) were found. There was no change in attitudes toward school ($MD = 0.080$, $SD = 1.327$, $d = 0.060$) and goal valuation ($MD = 0$, $SD = 0.721$, $d = 0$) and a moderate, negative effect on self-regulation ($MD = -0.620$, $SD = 1.346$, $d = -0.460$). The intervention was then implemented in a middle school with one 12-year old girl who was gifted and underachieving. An explanatory mixed methods design, combining a single-case A-B design, an interrupted time series simulation, and inductive analysis, was used. The model was perceived as useful, mainly in increasing self-perceptions. Results showed a significant increase in behavioral engagement ($d = 1.224$, $p < .001$) and improved achievement ($SMD = 1.28$). Academic self-perception ($MD = 0.57$) and attitudes toward school ($MD = 1.00$) improved, attitudes toward teachers showed no change, and goal valuation ($MD = -0.67$) and self-regulation ($MD = -0.40$) decreased. These two studies provide preliminary evidence for the effectiveness of the intervention.

CHAPTER 1 INTRODUCTION

Underachievement, especially in students with gifts and talents, can come at a great cost to individual students, families, and eventually society (Reis & McCoach, 2000; Snyder & Linnenbrink-Garcia, 2013). Therefore, researchers have focused on identifying the causes and characteristics of underachievement among students with gifts and talents (e.g., Matthews & McBee, 2007; McCoach & Siegle, 2003, 2005; Obergriesser & Stoeger, 2015). However, little research has focused on developing and evaluating interventions aimed at resolving academic underachievement. The proposed study aims to fill this gap by creating, implementing, and evaluating a model to help students with gifts and talent understand and increase their academic achievement and achievement motivation.

Underachievement is often defined as a significant discrepancy between an individual's ability and actual achievement (Reis & McCoach, 2000). Previous research has found that underachievement relates to individual factors such as a lack of motivation (e.g., Siegle et al., 2017; Snyder & Linnenbrink-Garcia, 2013), family-related factors such as a lack of support (e.g., Peterson, 2001; Rimm, 2008), and school-related factors such as uninteresting or unchallenging curricula (e.g., Matthews & McBee, 2007; Obergriesser & Stoeger, 2015). It is then not surprising that interventions addressing underachievement are typically implemented at the individual, parent, or teacher/school level. At the individual student level, researchers suggest enhancing achievement motivation, stimulating metacognitive and self-regulation skills, and teaching effective learning strategies (Baum et al., 1995; Hébert & Olenchak, 2000; Preckel et al., 2006; Reis & McCoach, 2000; Ruban & Reis, 2006; Rubenstein et al., 2012). At the parent level, support and modeling positive achievement and self-regulatory behaviors can increase academic achievement among children (Rimm, 2008). Finally, at the teacher and school levels, researchers have suggested

providing interesting and challenging learning activities (Renzulli & Reis, 2000; Siegle et al., 2010) or cluster grouping (Gentry et al., 2014).

Achievement motivation is almost certainly the most explored factor contributing to academic underachievement among students with gifts and talents. One theory of achievement that aims to explain why some students with gifts and talents achieve according to their potential and others do not is the *Achievement-Orientation Model* (Siegle, 2013; Siegle & McCoach, 2005; Siegle et al., 2017). In the *Achievement-Orientation Model*, Siegle and colleagues (2013; Siegle & McCoach, 2005; Siegle et al., 2017) theorized that students' self-efficacy, goal valuation or task meaningfulness, and perceived environmental support influence students' achievement because those factors lead to self-regulated behaviors that increase engagement and achievement.

Besides the intrapersonal factors identified in the *Achievement-Orientation Model*, Desmet et al. (2020) also found school transitions, relationships with teachers, and developmental readiness play an essential role in student achievement. Peterson (2001, 2002, 2003) and Peterson and Jen (2018) agreed that underachievement might also be a developmental issue. Some underachieving students might need time to complete the adolescent developmental task of developing their self-identity to achieve according to their ability (Desmet et al., 2020; Peterson, 2001, 2002; Peterson & Jen, 2018). Therefore, the *Peterson Proactive Developmental Attention Model* (Peterson & Jen, 2018) offers a framework for affective curricula to help educators in addressing some of the socio-emotional needs of students with gifts and talents in a proactive manner. Following this framework, Jen et al. (2017) created an affective curriculum model – the *GERI-Purdue Affective model*, which has been implemented since 2012 in a university-based summer enrichment program. Jen et al.'s (2017) findings indicated this was a beneficial experience for all parties involved, providing supporting evidence for the *Peterson Proactive Developmental Attention Model* as an appropriate theoretical framework for affective curriculum. However, more research is needed to establish the

benefits of affective curriculum interventions for addressing underachievement among students with gifts and talents and increasing their achievement and achievement motivation.

Purpose of this Study

Following the *Peterson Proactive Developmental Attention framework* (Peterson & Jen, 2018), I created an affective curriculum, the *Achievement Motivation Enhancement Model* (AME), to help increase achievement and achievement motivation in students. Specifically, the affective curriculum fits the themes identified in a narrative inquiry of underachieving students (Desmet et al., 2020) as well as a commonly referenced theory of why students underachieve, the *Achievement-Orientation Model* (Siegle et al., 2017). The AME includes exercises and small group discussions on topics such as enhancing achievement motivation, stimulating metacognitive and self-regulation skills, effective learning, and goal setting. Since these characteristics positively relate to academic achievement (Neuenschwander et al., 2012; Zimmerman & Kitsantas, 2014), the aim is to resolve underachievement. The present study is a two-part, mixed methods program of studies. First, I implemented the AME at a university-based enrichment program for gifted, creative, and talented students in a two-week format. Second, I implemented the AME as a 6-week school-based model with four Midwestern middle school students.

The following research questions guided my inquiry:

Qualitative questions:

    (1) How do students perceive the model and its effectiveness?

    (2) How do educators implementing the model perceive model and its effectiveness?

Quantitative questions:

(3) Did achievement motivation (engagement, academic achievement, goal valuation, self-regulation, and academic self-perceptions), and attitudes toward school and teachers improve after participating in the AME model?

Mixed Methods questions:

(4) In what ways do the qualitative data help to explain the quantitative findings?

Study One was a concurrent mixed-method study where I implemented the AME model at a 2-week summer camp. I collected quantitative and qualitative data that I analyzed simultaneously to evaluate the AME model. In Study Two, I used an explanatory mixed methods approach (Cresswell & Plano-Clark, 2017) to evaluate the effectiveness of the AME model quantitatively and qualitatively when applied in a 6-week school-based format. The evaluation of the 6-week, school-based model involved a single-case design (Barlow et al. 2013) followed by a qualitative inquiry. I analyzed the quantitative data visually and descriptively following principles from single-case design methodology (Barlow et al., 2009; Martella et al., 2013). I analyzed the qualitative data using inductive data analysis procedures outlined by Thomas (2006). The final goal of this program of studies was to produce a summative, explanatory meta-inference using interpretative transparency (Creamer, 2018). Therefore, I combined the results from the qualitative and quantitative phases and discussed them together to enhance understanding of why and how the model worked.

The Significance of this Study

The findings of this study add to the literature on interventions and models aimed at resolving underachievement. This research contributes to the validation of a low-cost affective curriculum model, the AME, with a high return on investment for both the individual students and

the broader community in which they live. Through the evaluation of this model, we gained insight into the educational experiences of students who are not achieving according to their ability and gained a deeper understanding of efforts that may help resolve underachievement. Specifically, results from this study provide initial evidence that a focus on achievement motivation, goal setting, and self-monitoring can increase achievement, engagement, and self-perceptions.

The AME model has the potential to facilitate the socio-emotional and cognitive development of students from all backgrounds, including but not limited to those identified for gifted or high-ability programs. Finding effective ways to increase achievement motivation transcends students with gifts and talents and provides valuable information for education in general. All students could likely benefit from increased goal valuation, self-efficacy, and self-regulation as researchers have shown that motivation interventions in education are successful across a diverse range of students (Lazowksi & Hulleman, 2016).

CHAPTER 2 LITERATURE REVIEW

Defining Underachievement

Before reviewing the concept of underachievement among students with gifts and talents, it is essential to review the concept of giftedness. Historically giftedness has primarily been conceptualized in terms of high intellectual abilities (Subotnik et al., 2011). This type of definition identifies giftedness as an innate quality. Children with gifts and talents are then presumed to remain gifted throughout the lifespan, regardless of any actual achievement. From this perspective, outstanding academic achievement requires nothing more than intellectual abilities. Many researchers contest this idea and suggest factors like personality and creativity also contribute (Gagné, 2010; Renzulli, 1978; Sternberg & Lubart, 1993). Since the 1920s a consensus has risen about the fact that intelligence alone is not enough to predict school performance. Within this perspective, an essential model of giftedness has been Renzulli's three-ring model (Renzulli, 1978). According to this model, gifted behavior reflects an interaction among three clusters of human traits: above average ability, high levels of task commitment, and high levels of creativity. Children with gifts and talents are then those who possess or can develop this composite set of traits and can apply them to areas of human performance (Renzulli, 1978). Continuing in this perspective, giftedness is not constrained to an innate ability; it is defined in terms of gifted behavior and manifests itself in actual outcomes or achievements (Subotnik et al., 2011). Thus ability, although necessary, is not sufficient to achieve. That brings me to the concept of underachievement among students with gifts and talents. Whereas giftedness is often presumed to manifest itself in actual outcomes (Subotnik et al., 2011), underachievement refers to the state of not being able to manifest one's giftedness into actual outcomes.

Reis and McCoach (2000) provided an overview of how underachievement in students with gifts and talents has been defined throughout the research. They identified three broad themes: (a) definitions that include a discrepancy between potential and performance; (b) definitions that view underachievement as a regression equation involving human potential and performance, meaning that underachievement is conceptualized as students who perform more poorly on achievement measures than one would expect based on measures of ability; and (c) definitions that view underachievement as failing to develop or use latent potential - here researchers make no attempt to define or measure potential. Though there is no consensus on how to define underachievement, there appears to be a common denominator within the variety of definitions, namely that underachievement has to do with identifying a discrepancy between ability and achievement (e.g., Albaili, 2003; Baslanti & McCoach, 2006; Baum et al., 1995; Davis et al., 2010; Lupart & Pyryt, 1996; Matthews & McBee, 2007; McCall et al., 2000; Reis & McCoach, 2000; Snyder & Linnenbrink-Garcia, 2013; Stoeger et al., 2014).

Although it seems that most researchers agree on using a discrepancy definition for underachievement, there are at least three concerns with this type of definition. First, when operationalized as test scores versus daily performance, it may be too limiting since underachievement, and particularly subject-based underachievement is more likely a symptom of a bigger problem rather than a problem in and of itself (Gillies, 2008). A second concern is that no test yields 100% reliable results. Therefore, underachievement, according to the discrepancy definition, could be attributed to testing error (Colangelo et al., 2004). A third concern involves the lack of agreement about what constitutes a significant discrepancy between actual and potential performance. Imperfect correlations between measures of intelligence and measures of school achievement exist (Gralewski & Krawowski, 2012; Tan et al., 2013; Siegle & McCoach, 2018). Therefore, there is no reason to assume that someone who scored in the 95th percentile on a measure

of intelligence should also score in the 95th percentile on a test of achievement. Different researchers use different cut-offs, and different kinds of underachievement (e.g., general underachievement and domain-specific underachievement or absolute and relative underachievement) are researched in different studies, leading to inconsistent operationalization of underachievement over various studies (McCall et al., 2000; Preckel et al., 2006). Finally, when students have a discrepancy between their achievement and ability, they do not need to be failing. It is possible that a student simply scores lower than expected on an achievement measure, compared to their ability (McCall, 1994). Koenderink and Hovinga (2018) call this *relative underachievement* compared to *absolute underachievement* – which is when a student has failing grades. Even though discrepancy definitions are often used and very precise, they are not perfect.

In conclusion, defining underachievement is not easy and might be the reason this population is often overlooked in empirical research (Morisano & Shore, 2010). Nevertheless, Reis and McCoach (2000) have proposed what they call 'an imperfect, yet workable operational definition' (p. 157) of underachievement, which seems widely accepted (e.g., Abaili, 2003; Matthews & McBee, 2007; Ritchotte et al., 2014; Stoeger et al., 2014). Their definition is as follows:

> Underachievers are students who exhibit a severe discrepancy between expected achievement (as measured by standardized achievement test scores or cognitive or intellectual ability assessments) and actual achievement (as measured by class grades and teacher evaluations). To be classified as an underachiever, the discrepancy between expected and actual achievement must not be the direct result of a diagnosed learning disability and must persist over an extended period. (Reis & McCoach, 2000, p. 157)

Characteristics of Gifted Underachievement

Generally three categories related to underachievement are addressed in the literature: (a) Individual characteristics (e.g., Abaili, 2003; Baslanti & McCoach, 2006; Kim, 2008; Lau & Chan, 2001; McCoach & Siegle, 2003; Obergriesser & Stoeger, 2015; Snyder & Linnenbrink-Garcia,

2013; Reis & McCoach, 2000; Siegle et al., 2017; Stoeger et al., 2014; Whitmore, 1980), (b) Family-related characteristics (Baker et al., 1998; Hansen & Toso, 2007; Moon & Hall, 1998; Matthews, 2006; Peterson, 1997, 2001; Reis & McCoach, 2000; Renzulli & Park, 2000, 2002), and (c) School-related characteristics (e.g., Colangelo et al., 2004; Hansen & Toso, 2007; Matthews & McBee, 2007; Reis & McCoach, 2002; Peterson, 1997, 2001; Stoeger et al., 2014; Whitmore, 1980). I will address each of these separately, but clearly underachievement is a complex matter, in which variables in all three categories interact.

Individual Characteristics

Based on my literature review, I have identified four broad themes of individual characteristics that have been addressed in the underachievement literature, including characteristics related to: (a) Achievement motivation (e.g., Baslanti & McCoach, 2006; Lau & Chan, 2001; Obergriesser & Stoeger, 2015; Preckel et al., 2006; Siegle et al., 2017), (b) Learning behaviors and skills (e.g., Moon & Hall, 1998; Obergriesser & Stoeger, 2015; Rimm, 2008; Whitmore, 1980), (c) Socio-emotional issues (Emerick, 1992; Matthews & McBee, 2007; Obergriesser & Stoeger, 2015; Peterson, 2001; Peterson & Jen, 2018), and (d) Positive aspects (e.g., Kim, 2008; Reis & McCoach, 2002; Whitmore, 1980). Moreover, researchers suggested that boys with gifts and talents tend to underachieve at two to three times the rate of girls with gifts and talents (Matthews & McBee, 2007; McCoach & Siegle, 2001; Rubenstein et al., 2012)

Achievement Motivation

As mentioned before, many definitions of giftedness refer to motivation as an essential factor in gifted achievement (Gagné, 2010; Sternberg & Lubart, 1993). Thus, it is not surprising that many studies on gifted underachievement have identified lack of motivation as a possible

explanation for why students are not achieving as well as they could in school. Among variables related to motivation, academic self-concept is one of the most widely studied. The results are mixed with most of the research reporting generally lower levels of academic self-concept in underachievers with high ability compared to both achievers with high ability and non-high-ability achievers (Baker et al., 1998; Boxtel & Mönks, 1992; Baslanti & McCoach, 2006; Figg et al., 2012; Lau & Chan, 2001; Matthews & McBee, 2007; Whitmore, 1980). When students do not believe they can achieve or when a person has an entity belief of intelligence (i.e., the belief that intelligence is fixed and unchangeable), they will spend little effort on learning and give up faster when facing a challenge (Desmet et al., 2020; Dweck, 2006; Lau & Chan, 2001; Mueller & Dweck, 1998; Snyder & Linnenbrink-Garcia, 2013) leading to potential academic failure. This failure will then affect a student's self-concept and self-confidence negatively, creating a vicious cycle that makes it hard to resolve patterns of underachievement (Desmet et al., 2020; Lau & Chan, 2001; Rimm, 2008). Nevertheless, some researchers (Lupart & Pyryt, 1996; McCoach & Siegle, 2003) did not find significantly lower academic self-concepts for underachieving students with gifts and talents. McCoach and Siegle (2003) argued that this disagreement could be due to methodological differences, in which qualitative researchers have found evidence to support lower self-concepts and quantitative researchers have not. However, I would like to point out that, among others, Boxtel and Mönks (1992) and Baker et al. (1998) provided evidence for lower self-concepts among underachievers based on quantitative analyses of 772 and 56 participants, respectively. It should also be noted that Baslanti and McCoach (2006) found that, although students with gifts and talents who were underachieving scored lower on academic self-concept compared to high achievers, they did not generally score low on academic self-concept.

Another difference between achievers and underachievers is in their goal-orientation. Researchers have shown that underachievers tend to have a performance goal-orientation; whereas,

achievers have a mastery goal-orientation (Abaili, 2003; Ford, 1993; Lau & Chan, 2001; Obergriesser et al., 2015). Students with a mastery goal-orientation focus more on effort, task, and improvement. Having a mastery goal-orientation is also related to having an incremental belief of intelligence (i.e., intelligence is malleable and can be cultivated; Chen & Wong, 2015; Elliot & Dweck, 1988) and higher academic achievement (Abaili, 2003; Chen et al., 2015). Students with a performance goal-orientation are more dependent on verbal feedback, have an adverse reaction to failure, and tend to have an entity belief of intelligence (Abaili, 2003; Elliot et al., 1988; Snyder & Linnenbrink-Garcia, 2013).

Achievement Orientation Model

One often-referenced theory of achievement is the Achievement-Orientation Model (AOM, Siegle, 2013; Siegle & McCoach, 2005; Siegle, McCoach, & Roberts, 2017), which is based on Bandura's (1986) self-efficacy theory, Weiner's (1985) attribution theory, Eccles' (2000) expectancy-value theory, and Lewin's (1938) person-environment fit theory. The Achievement-Orientation Model theorizes that individual's self-perceptions in the areas of self-efficacy, goal valuation or task meaningfulness, and environmental support, affect student achievement because those perceptions are related to self-regulated behaviors that increase engagement and achievement (Siegle, 2013; Siegle & McCoach, 2005; Siegle et al., 2017). A student's self-perception in these three areas does not need to be equally strong; however, it does need to be positive. An initial exploratory validation study by Ritchotte et al. (2014) showed that several of the relationships theorized in the AOM indeed existed; however, more research on the model is necessary.

The Achievement-Orientation Model mainly focuses on individual factors and, although Siegle (2013) recognized cultural values influence student perceptions, the Achievement-Orientation Model does not fully account for the influence of family, peer, and school factors on

motivation, self-regulation, and achievement. Findings from a narrative study (Desmet et al., 2020), confirmed that some underachieving students do perceive less environmental support, mainly from teachers, and attribute their underachievement in part to a lack of goal valuation, self-regulation, and effective learning strategies.

Characteristics Related to Learning Behavior and Skills

Due to attributes like a low academic self-concept, an entity belief of intelligence, and performance goal-orientation, it has been argued that many students with gifts and talents who underachieve have deficient self-regulation skills, insufficient metacognitive skills, and lack overall effective learning strategies (e.g., Desmet et al., 2020; Lau & Chan, 2001; Obergriesser & Stoeger, 2015). Obergriesser and Stoeger (2015) found the underachieving students in their sample frequently used the learning strategies; however, the correlation between the frequency of the learning strategy use and achievement was negative. This finding indicates that underachieving students might not know how to correctly apply the learning strategies they use. Similarly, Desmet et al. (2020) found that some underachieving students stated they do not know how to study, which leads them to procrastinate their school work. Lau and Chan (2001) also found that underachieving students attributed their underachievement to a lack of study skills. Moreover, they found learning skills and self-concept significantly differentiated between high achievers and underachievers.

Characteristics Related to Social and Emotional Issues

Besides the intrapersonal factors identified in the Achievement-Orientation Model (Siegle, 2013; Siegle & McCoach, 2005; Siegle et al., 2017), Desmet et al. (2020) also found that life events and developmental readiness played an essential role in student achievement. Adolescents with gifts and talents are no stranger to personal difficulties (Peterson, 1998, 2002, 2012, 2014). These

students are equally prone to intra- and interpersonal issues due to their race or ethnicity, culture, and socioeconomic status (Olszewski-Kubilius & Clarenbach, 2012; Plucker & Peters, 2016), or sexual orientation (Peterson, 2000) as other students. The same goes for adverse life events and trauma such as family relocating, parents divorcing, or a death in the family (Peterson et al., 2009). Therefore, many factors affect a student's ability to concentrate on and engage with schoolwork, peer relations, and teacher relations. Moreover, Peterson argued that underachievement may be a developmental issue (Peterson, 2001, 2002, 2003; Peterson & Jen, 2018). For example, Peterson explained some underachieving students might need time to complete their developmental tasks – often developing a clear sense of self – to achieve according to their ability (Desmet et al., 2020; Peterson, 2001, 2002; Peterson & Jen, 2018).

Finally, students with gifts and talents who are underachieving are often profiled as anxious and suffering from a fear of failure (Baker et al., 1998; Baum et al., 1995; Mandel & Marcus, 1988; Matthews & McBee, 2007; Obergriesser & Stoeger, 2015; Peterson, 1998; Peterson & Colangelo, 1996; Preckel et al., 2006; Richardson et al., 2012). Perfectionism and depression are also common characteristics of students with gifts and talents who underachieve (Baum et al., 1995; Matthews & McBee, 2007; Peterson, 2000; Reis & McCoach, 2002), and Emerick (1992) found that underachievers tend toward anti-social and rebellious behavior. Researchers have also identified underachievement as a deliberate strategy to maintain the existing cultural or peer identity (Ford, 1993; Reis & McCoach, 2000; Whitmore, 1980). The latter is primarily an issue for students from underrepresented populations, with researchers mainly focusing on the issue among African-American and Latinx students.

Positive Aspects

A limited amount of literature identified the positive characteristics of underachievers. For example, researchers have shown the underachievement of some children with gifts and talents relates to their creativity (Kim, 2008; Whitmore, 1980). Common characteristics of creative children with gifts and talents are nonconformity, resistance to teacher dominance, impulsivity, and indifference to rules (Davis, 2003; Moon & Hall, 1998), characteristics that do not blend well with a traditional school environment.

Furthermore, researchers have found teachers tend to dislike creative students (Westby & Dawson, 1995) and are more likely to rate creative students as disruptive (Scott, 1999). Creative behavior such as asking many questions, exploring alternative views, and being critical is often viewed as disruptive or challenging behavior. Instead of rewarding this creativity, teachers then tend to ignore or punish it causing future unwillingness to show creativity in the classroom and eventual underachievement (Kim et al., 2010). It might thus be possible that creative students with gifts and talents are more prone to underachievement because of this mismatch with the educational environment. Other positive characteristics include intense outside interests and commitment to self-selected work (Baum et al., 1995), indicating that underachievement can be specific to certain situations (Rimm, 2008).

Family Characteristics

Compared to research focusing on individual characteristics, the research on family characteristics is somewhat limited and mainly qualitative. Most researchers seem to agree that a lack of parental support and lack of positive affect is related to academic underachievement (Baker et al., 1998; Dowdall & Colangelo, 1982; Emerick, 1992; Peterson, 2001; Reis & McCoach, 2000; Rimm, 2008; Whitmore, 1980).

Other family characteristics associated with underachievement among students with gifts and talents include family transitions like divorce or the death or illness of a family member (Matthews, 2006; Peterson, 2001; Renzulli & Park, 2000; Rimm, 2008). Under-involved and non-encouraging parents, underachieving parents, as well as parents who are unsatisfied with their job, may not provide a child with a supportive environment, nor positive role models needed to stimulate academic achievement (Peterson, 2001; Rimm, 2008). Researchers suggests these family characteristics could even play a more critical role in the academic achievement of younger children than the individual characteristics mentioned above, but more research is necessary (Stoeger et al., 2014).

School-Related Factors

At the school level, an unchallenging and/or uninteresting curriculum is the main factor related to underachievement (Baum et al., 1995; Colangelo et al., 2004; Desmet et al., 2020; Emerick, 1992; Matthews & McBee, 2007; Peterson, 1997, 2001; Reis & McCoach, 2002; Stoeger et al., 2014; Whitmore, 1980). Students with gifts and talents often succeed with limited amounts of effort in their early academic careers (Desmet et al., 2020; Snyder & Linnenbrink-Garcia, 2013). This lack of challenge can stimulate a fixed mindset or a devaluation of academic work, potentially causing a fear of failure or disengagement when a student is eventually confronted with more challenging curricula, which may likely result in underachievement (Desmet et al., 2020; Snyder & Linnenbrink-Garcia, 2013). Furthermore, in the Expectancy-Value Theory, Wigfield and Eccles (2000) argued the inherent interest a student has in a task (i.e., intrinsic task value), along with students' other values and their expectancy of success, will influence a students' achievement-oriented behavior. Thus, when students are confronted with uninteresting curriculum this may affect their levels of achievement.

Interventions to Address Underachievement

Based on a review of the literature there are three levels of interventions aimed at helping underachieving students with gifts and talents: (a) interventions at the student level (Abaili, 2003; Hébert & Olenchak, 2000; Preckel et al., 2006), (b) interventions at the parent level (Baker et al., 1998; Moon & Hall, 1998; Paik & Walberg, 2007; Peterson, 2001; Rimm, 2008), and (c) interventions at the curriculum, teacher, or school level (Baker et al., 1998; Baum, et al., 1995; Emerick, 1992; Matthews & McBee, 2007; Obergriesser & Stoeger, 2015). Most researchers have focused on only one intervention at one of these levels. Nevertheless, Rimm (2008) in her trifocal model stated to truly help resolve a student's underachievement interventions at all levels are necessary.

Interventions at the Student Level

Generally, researchers recommend a combination of enhancing achievement motivation, stimulating metacognitive and self-regulation skills, and teaching the use of effective learning strategies (Baum et al., 1995; Hébert & Olenchak, 2000; Preckel et al., 2006; Reis & McCoach, 2000; Rimm, 2008; Rubenstein et al., 2012), since these skills positively relate to academic achievement (Neuenschwander et al., 2012; Zimmerman & Kitsantas, 2014). In dealing with fear of failure, perfectionism, and depression, counseling can be very helpful (Peterson, 2001). Furthermore, some researchers have suggested a growth mindset (i.e., an incremental belief of intelligence or viewing intelligence as malleable) intervention may also be useful in resolving underachievement (Paunesku et al., 2015; Snyder et al., 2013). Researchers have also suggested mentoring as a successful intervention for resolving underachievement (Hébert & Olenchak, 2000; Peterson, 2001; Rimm, 2008; Schunk, 2012). Rimm's second law of achievement states "Children learn appropriate behaviors more easily if they have effective models to imitate" (Rimm, 2008, p.

xxi). Parents are usually the most frequently available models for children, but mentors can also be influential (Hébert & Olenchak, 2000; Rimm, 2008). Rimm (2008) stated that identifying with positive, achieving, same-sex role models could be beneficial to the achievement of underachievers. Researchers focusing on underrepresented populations have also pointed out the importance of providing students with role models or mentors who share the same race to help resolve underachievement in underrepresented students (e.g., Ford, 1993; Schunk, 2012). Hébert and Olenchak (2000) found the open-minded, nonjudgmental character of the mentor, together with the personalized socio-emotional support, advocacy, and strength and interest-based interventions made mentorship a valuable tool in resolving underachievement.

Interventions at the Parent or Family Level

Rimm's (2008) first law of achievement states, "Children are more likely to be achievers if their parents join to give the same clear positive message about school, effort, and expectations" (p. xxi). These positive messages can improve a child's self-esteem and self-concept, in turn influencing motivation and beliefs about intelligence. Helping parents to stimulate and support their child's achievement adequately will, therefore, be an essential part of resolving the child's underachievement. It is also crucial that parents themselves are achievers and even more critical that they share realistic and positive views of achievement with their children (Rimm, 2008). A child should see that effort leads to achievement and that parents sometimes fail or feel disappointed. A child can learn coping strategies by observing how parents handle those failures and disappointments. Therefore, it is vital that parents handle their own possible underachievement and actively value the achievements of their partner (Rimm, 2008).

Interventions at the School, Curriculum, or Teacher Level

Considering that the main issue at the curricular level is a lack of challenge (Emerick, 1992; Gevaert & Desmet, 2016; Rimm, 2008; Whitmore, 1980), interventions at this level aim to adequately challenge the underachieving student. One way of delivering more challenging curriculum is through acceleration and curriculum compacting (Davis et al., 2010; Emerick, 1992; Fearn, 1982; McGrail, 2005; Rimm & Lovance, 1992). Researchers have shown appropriate rates of acceleration can be beneficial in resolving underachievement caused by a lack of challenge and stimulation (Davis et al., 2010; Emerick, 1992; Fearn, 1982; McGrail, 2005; Rimm & Lovance, 1992). Another way of challenging the underachiever is through enrichment (Renzulli & Reis, 2000; Siegle et al., 2010), such as part-time classrooms, grouping strategies that create full-time classes for students with gifts and talents, and out-of-school enrichment programs (Gentry, 2014; Reis & McCoach, 2000; Whitmore, 1980).

Through smaller student/teacher ratios and differentiated, accelerated, and enriched learning activities, more room for student choice, adjustments to different learning preferences and strategies, as well as more learner control, exists (Davis et al., 2010; Reis & McCoach, 2000), which are all associated with increased achievement. Enrichment activities should align with the individual students' strengths and interests, making the enrichment intrinsically motivating and in turn cause students to be more receptive to learning strategies that will help increase their self-concept and achievement (Baum et al., 1995), to resolve underachievement successfully.

Grouping students with gifts and talents can have the benefit of high-achieving peers positively influencing underachieving students (Reis et al., 1995). Moreover, even within a cluster grouping framework, in which students are grouped based on achievement, researchers have suggested to group students whose achievement does not accurately reflect their ability (i.e., underachievers) with their high achieving peers when we have reason to believe they are gifted

(Gentry et al., 2014). Homogenous grouping has the benefit of encouraging those who are relatively underachieving to take on new leadership roles and move to the top of their cluster because there is a new classroom dynamic. Moreover, homogeneous classrooms allow teachers to assess student talent more accurately, and often make students with gifts and talents feel more accepted because they are around students who are like them (Gentry et al., 2014; Peterson, 2003). A logical derivation is that underachieving students will find the same sense of acceptance beneficial when grouped with other underachieving students with gifts and talents, creating a safe space of shared experiences that have the potential to pull students out of their isolation (Peterson, 2003).

Peterson Proactive Developmental Attention Model

The *Peterson Proactive Developmental Attention Model* (Peterson & Jen, 2018) offers a framework for an affective curriculum to help educators to address some of the socio-emotional needs of students with gifts and talents in a proactive fashion. This model can be applied to help underachievers connect to their intellectual peers during times of developmental impasse or difficult circumstances (Peterson & Jen, 2018, p.125). Through small group discussions, Jen et al. (2017) and Peterson and Lorimer (2011) implemented an affective curriculum following the *Peterson Proactive Developmental Attention Model* and provided evidence of its effectiveness. Peterson and Lorimer (2011) implemented small-group discussions on affective topics at a private school for gifted adolescents and found that students perceived positive influences on their school experience and positive changes in students' needs to talk to peers about affective concerns. Jen et al.'s (2017) findings indicated that the group experience was perceived positively by all parties involved – including students and group facilitators. Twenty-two out of twenty-four students mentioned positively altering their behaviors after participating in the small group discussions. Specifically, students specified having more self-confidence and being more open to people. Jen et

al. (2017) found short-term and long-term benefits from participation in the small group discussions, therefore, providing supporting evidence for the *Peterson Proactive Developmental Attention model* as an appropriate theoretical framework for the affective curriculum.

In conclusion, most of the research to date has focused on identifying characteristics and causes of underachievement, leaving a clear need for research on interventions aimed at resolving and preventing underachievement. Therefore, the proposed study aims to fill this gap by creating, implementing, and evaluating a model to help students with gifts and talent resolve their underachievement.

CHAPTER 3 METHODS

Purpose

Following the *Peterson Proactive Developmental Attention framework* (PPDA; Peterson & Jen, 2018), I created an affective curriculum, the *Achievement Motivation Enhancement Model* (AME), to focus on increasing academic achievement and achievement motivation among students. The present study involved implementing the AME in a 2-week summer enrichment program for gifted and talented students and later implementing the AME as a 6-week school-based intervention with a focus on students who are academically underachieving.

The Achievement Motivation Enhancement (AME) Model

The AME model consists of an affective curriculum component for students and a training component for teachers and camp counselors who will act as group facilitators. The 3-hour training for facilitators addresses (a) the needs of students who are underachieving, (b) brief skills training on how to guide the small-group discussions, and (c) an overview of the affective curriculum. I monitored the implementation closely to provide additional support as needed and I conducted a debriefing with the facilitators after they completed the curriculum. I followed Peterson and Jen's (2018) guidelines for how to train group facilitators and implemented a focus on the whole child, a developmental and proactive perspective, and had facilitators address potential personal biases and potential ethical concerns.

The AME curriculum (see Appendix A) focuses on the themes identified in a narrative study of underachieving students (Desmet et al., 2020) and builds on existing theories of why students underachieve such as the Achievement-Orientation Model (Siegle et al., 2017). The six guided discussion sessions are: (a) Hello my name is… and this is my talent toolbox, (b) Turning

dreams into goals, (c) Now I see me, (d) I thought I could and I did, (e) My learning process, my rules, and (f) When the going gets tough… the tough keep going. Table 1 includes a detailed overview of what the AME model entails. Given that Peterson and Jen (2018) stated that all students can benefit from participating in small group discussions about affective topics when used in a proactive and preventative manner, I will not limit the use of the AME to only students who are underachieving. However, the aim of these studies is only to evaluate the effectiveness of the AME for students who are underachieving.

Table 1 Overview of the Achievement Motivation Enhancement Model

3-hour on-site training for facilitators	Small group facilitators participated in a 3-hour training on the needs of students with gifts and talents who are underachieving, brief skills training on how to guide these small-group discussions, and an overview of the affective curriculum.
Monitoring, support, and debriefing	For this study, I monitored the implementation closely and checked in regularly with the facilitators (daily during study one and weekly during study two). Support and additional training were provided on an as-needed basis over the course of the study.
	An official debriefing took place after the curriculum was complete. This debriefing took place in the form of an interview. (appendix B)

Table 1 continued

Small group discussion format	Each small-group discussion session lasted approximately 60 minutes. There were no specific requirements about the meeting place, except the recommendation to do it in a private space, where the discussions could be held uninterrupted. At the summer residential program, students met approximately every other day for 2 weeks. At school, students met every week for 6 weeks.
The AME curriculum	The AME curriculum includes an introduction to the model and extensive background information on facilitating small group discussions and specific strategies to handle fear, perfectionism, procrastination or regulation, and insecurity. The background information also covers autonomy-supportive facilitation. Each session has a section with background information related to the specific topic. Each exercise includes objectives, time allotted, suggestions, materials, preparation, substitutions, instructions (including an example script and guiding questions). Each session starts with an opening round, followed by one or more exercises, and an exit ticket.
Small group discussion session 1: Hello, my name is …and this is my talent toolbox	Students introduce themselves through an activity that encourages self-reflection. Students identify strengths and talents while making a "talent toolbox." These activities are designed to develop an open and safe atmosphere. Students practice self-reflection and identify their strengths and talents. This session focusses on improving self-perceptions.

Table 1 continued

Small group discussion session 2: Turning Dreams into goals	Students practice formulating realistic and intrinsic goals. Students will address the difference between performance and learning goals. Students break up goals into long term and short-term goals, and then break their goals into small, manageable steps. Students practice self-evaluation and develop a step-by-step plan for achieving their goals.
Small group discussion session 3: Now I see me	Students reflect on their behavior in relation to their goals. Students identify wanted and unwanted behaviors and learn strategies for self-recording, self-monitoring, and self-evaluation in relation to those behaviors and their goal progress.
Small group discussion session 4: I thought I could and I did	Students discuss the challenges they face and how it can be an opportunity to grow. Students discuss how to prepare for struggles and what they can do or say to continue pursuing their goals when things do not go as planned. This session targets resilience.
Small group discussion session 5: My learning process, my rules	Students practice self-assessment and learn about the power of yet. Students identify what is in their comfort zone, learning zone, and panic zone. Students practice self-directed learning.
Small group discussion session 6: When the going gets tough…the tough keep going	The final session allows for reflection on all previous topics and will include specific discussion of coping strategies and positive self-talk as ways to handle setbacks.

Research Questions

Qualitative questions:

(1) How do students perceive the model and its effectiveness?

(2) How do educators implementing the model perceive model and its effectiveness?

Quantitative questions:

(3) Did achievement motivation (engagement, academic achievement, goal valuation, self-regulation, and academic self-perceptions), and attitudes toward school and teachers improve after participating in the AME model?

Mixed Methods questions:

(4) In what ways do the qualitative data help to explain the quantitative findings?

Research Design

A mixed methods program of studies guided my inquiry. Study One was a concurrent mixed methods study (Creswell & Plano-Clark, 2017), with an emphasis on the qualitative inductive data analysis approach (Thomas, 2006) followed by descriptive mean comparisons. Study Two was an explanatory mixed method study (Cresswell & Plano-Clark, 2017) with an emphasis on the quantitative, single-case design (Martella et al., 2013), followed by an inductive data analysis of qualitative data to further explain the quantitative findings. Both studies concluded with an integrative analysis of data from the quantitative and qualitative phases to produce a summative, explanatory meta-inference to further clarify whether, why, when, and how the model worked. Figure 1 provides a visual representation of the research design.
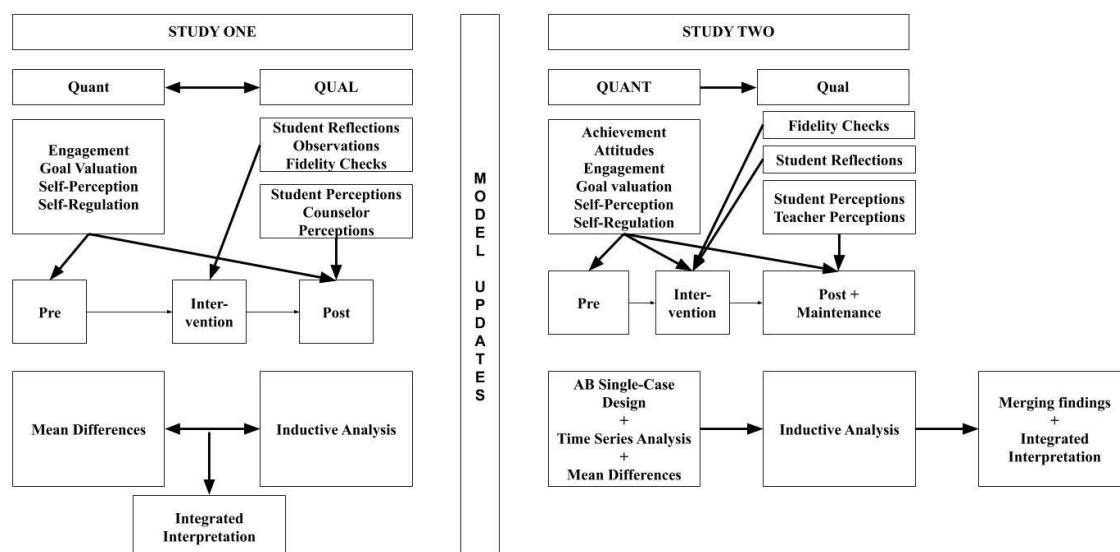
Figure 1 Research Design

Study One

For this study, I used a concurrent mixed methods approach to evaluate the implementation of the AME curriculum in a summer enrichment program for students with gifts and talents. I collected and analyzed quantitative and qualitative data simultaneously (Creswell & Plano-Clark, 2017).

Setting

The study took place in a summer enrichment program for gifted, creative, and talented students at a Midwestern University in the United States. The summer enrichment program was open to students in 5th through 12th grade, who met two of the following criteria: (a) a Grade Point Average (GPA) of 3.5/4 in the talent area related to their choice of class(es), (b) individual or group intelligence test results with a minimum score of 120, (c) a national or state achievement or aptitude test result at or above the 90th percentile, (d) a recommendation from a teacher or mentor in the talent area related to their choice of class(es), or (e) documentation of involvement in the talent

area related to their choice of class(es), such as awards or recognition letters (Institute, 2019). The program had a diverse student population with approximately one-third of students receiving financial aid to attend the camp, students attending from all over the United States, and approximately 20% international students. Students attended the program for 2 to 4 weeks and chose two different enrichment classes, which they attend during the day. During the evenings, one of the scheduled activities was small group discussions in which camp counselors implemented the AME affective curriculum with students in grades seven through 12.

Participants

Students

All students attending the camp received a recruitment letter with information about the study. Students who met one or more of the following criteria were eligible to participate in the study: students who (a) had a standardized achievement test score above the 80th percentile in one or more areas and a GPA of 3.0 or lower on a 4-point scale, (b) participated in a high-ability or gifted program at one point in time but no longer qualified, or (c) felt like they were not achieving as well as they could and therefore self-identified as underachieving. Students briefly explained why they self-identified as underachieving in a screening form. I used this screening form as a vetting opportunity to establish why students volunteered to take part in the study and who met the criteria.

Twenty-seven students submitted forms to participate in the study. Following the vetting procedure, I determined six students did not meet the criteria and excluded them from the study. The other 21 candidates were admitted to the study. At the start of the pre-test, one student changed

her mind and asked to exit the study. The final sample included 20 students, demographic information is presented in the results section.

Camp counselors

I selected four camp counselors to implement the AME affective curriculum as part of this study: Ben (White, male), Grace (White, female), Kathy (Asian, female), and Tana (White, female). Program coordinators facilitated the recruitment of camp counselors to be part of this study. I selected camp counselors based on their previous experience at the camp and their educational background. One camp counselor had a degree in counseling psychology (Tana) and three camp counselors were pursuing a teaching degree. All camp counselors had taken at least one introductory course on motivation theory and had previous experience guiding small discussion groups either at this camp or through other experiences. Two camp counselors worked with a group of 7th and 8th graders (Kathy & Grace) and two camp counselors worked with high school students (Tana & Ben).

Instruments

School Attitudes Survey-Revised

I used the School Attitudes Survey-Revised (SAAS-R; McCoach, 2002) to measure goal valuation, academic self-perception, motivation/self-regulation, attitudes toward school, and attitudes toward teachers. Example items are "I want to get good grades in school" for goal valuation, "I am intelligent" for self-efficacy, "I check my assignments before I turn them in" for self-regulation, "I relate well to my teachers" for attitudes toward teachers, and "This is a good school" for attitudes toward school. All items have a 7-point Likert scale. The SAAS-R also includes some questions regarding students' self-reported GPA, which I used to measure student

achievement. McCoach (2002) used an initial sample of 1,738 middle and high school students and a cross-validation sample of 420 students to establish validity and reliability evidence for the data generated by the SAAS-R. Confirmatory factor analysis (CFA) results for the final model tested on the initial sample exhibited good fit, χ^2 (162, $N= 1{,}561$) $= 1013.4$, $TLI = .95$; $CFI = .96$; $RMSEA = .058$; $SRMR = .035$. CFA results on the cross-validation sample confirmed this good fit, χ^2 (162, $N = 420$) $= 509.5$, $p < .001$, $CFI = .94$, $TLI = .92$, $RMSEA = .075$, and $SRMR = .045$. Internal consistency reliability estimates were satisfactory as well, all Cronbach's alpha reliability estimates exceeded .80 with both samples.

Interview Protocols

I created two semi-structured open-ended interview protocols – see Appendix B – one for camp counselors and one for students. I designed the questions in these protocols to provoke thought about a student's or a camp counselor's experiences with the AME curriculum. Sample questions are "Tell me about some things you learned in the small group discussion sessions?" for the students and "Tell me about some activities or topics you found particularly useful or interesting for students." for the camp counselors. I interviewed all participants once after the intervention concluded, approximately 30 minutes for students and approximately 45 minutes for camp counselors.

Training Comprehension Check

The AME model has a training component. This training covered information on the needs of students with gifts and talents who are underachieving, brief skills training, and an overview of the affective curriculum. Therefore, I designed a comprehension check (Appendix C) to evaluate the camp counselors' understanding of the material covered in the training. This

comprehension check included general feedback questions, such as "How confident do you feel in your ability to facilitate the small group discussions?" and "do you have any questions?" Camp counselors also responded to two small group discussion scenarios and had to explain specific strategies they would use with students in these scenarios.

Post-Camp Survey

As part of the regular camp procedures, students completed a post-camp survey (Appendix D) in which they gave feedback on their experiences at the camp. Several of the questions in this survey pertain to students' experiences during the AME sessions, thus these data were collected for analysis. For example, students were asked to evaluate their counselors using questions such as "How would you rate your counselor's competency?" and "How would you rate the level of comfort you felt with your counselor?" Students also answered a series of open-ended questions designed to give more general feedback regarding their experience at the camp such as "If you could change something about camp to make it better, what would it be?" and "What were your three favorite things about camp?"

Procedures

All students attending the camp received the same AME affective curriculum. However, I only collected additional data on those students who submitted parental consent and student assent forms to participate in the research study. The additional data (surveys and observations) were collected during the small group discussion sessions. To protect participants' privacy, all communication regarding the research with people outside of the study was focused on evaluating the effectiveness of the AME, with no mention of underachievement.

Four camp counselors implemented the AME curriculum as part of the study. One camp counselor (Kathy) had a group that consisted of only research participants ($n = 7$). The other three camp counselors had research participants (i.e., students who were underachieving) and regular campers (i.e., students who may or may not have been underachieving). Tana, Grace, and Ben had counseling groups of eight members with four, six, and three research participants, respectively.

The camp counselors received 2 hours of training about the AME curriculum, in addition to the regularly required 2-day training, which included reviewing camp procedures, safety training, and skills training. The additional training focused on the needs of students with gifts and talents who are underachieving, strategies for how to best serve these students, an overview of the curriculum and a discussion session role play. I conducted a brief comprehension check at the end of the training to evaluate camp counselors' understanding of the curriculum objectives. Additionally, camp counselors met with me to review questions, concerns, and procedures each day they had a small group session.

Data Collection Procedures

At the start of the first small group discussion session and at the end of the last small group discussion session students filled out the SAAS-R (McCoach, 2002), this took approximately 5 minutes each time. Each session ended with a short reflection activity. These reflections required students to write down some thoughts on the topics discussed and the about lessons learned. Students received a notebook in which to write these reflections. I took copies of these reflection assignments and transcribed them for analysis.

On the last Friday of the summer program, students filled out a post-camp survey to provide some feedback on their camp experiences for program evaluation purposes. I collected the

responses to those surveys from my participants as they provided some additional information on students' perceptions of the small group discussion activities.

Once the camp concluded, a colleague and I interviewed students about their experiences at the camp and their experiences in the small group discussion sessions. These interviews lasted approximately 30 minutes and were audio-recorded and transcribed for analyses.

Camp counselors were observed during each small group discussion by a colleague and me to evaluate the fidelity of implementation. I interviewed the four camp counselors who implemented the model concerning their perceptions of the AME curriculum. These interviews ranged from 20 to 68 minutes each.

Qualitative Data Analysis Procedures

I started by creating case profiles for each student with the demographic information I had from them and assigning the interview data and reflection notes to the respective cases. I read the answers to the open-ended post-camp survey questions and highlighted references to the AME sessions. I then added these answers to the case profiles of the respective students. Then I used an inductive approach (Thomas, 2006) to analyze the interview transcripts and reflection documents. First, I read the data to familiarize myself with the content. Next, I read the data and wrote down my initial thoughts and responses (i.e., writing memos). This helped me engage in a self-reflective process of recognizing and setting aside my thoughts as much as possible (i.e., bracketing; Tufford & Newman, 2012). During the third reading, I highlighted passages of interest and identified initial patterns and themes in the data. In the fourth reading, I continued to identify patterns and themes while actively comparing my findings across participants. In these initial rounds of coding, I used in vivo and initial coding (also known as open coding) strategies (Saldaña, 2013). Through several more readings of the data, and specifically the passages of interest, I organized my initial codes

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(i.e., themes and patterns) into categories using focused coding (Saldaña, 2013) and later reduced the categories to those most salient through the process of axial coding (Saldaña, 2013). Finally, I used the axial codes to gain understanding of whether, why, when, and how the participants experienced the small group discussions and activities as useful.

Quantitative Data Analysis Procedures

I used mean differences to report changes in the participants' academic self-perception, goal valuation, self-regulation, attitudes toward school and attitudes toward teachers, before and after participating in the AME model. I then analyzed the qualitative data with the quantitative data to help interpret the mean differences.

Study Two

For Study Two, I used an explanatory mixed method approach to evaluate the implementation of the AME in a school setting. The focus was on collecting and analyzing quantitative data as part of a single-case design. I used the qualitative data to further explain the quantitative findings (Cresswell & Plano-Clarke, 2017).

Setting and Participants

This study was conducted in a middle school in the Midwestern U.S. The school served 774 students at the time of the study in grades 6 through 8. Approximately 32% of the students were on free and reduced lunch and the ethnic breakdown of the student population was 2.5% Asian, 4.9% Black, 11.2% Hispanic, 0.4% Native American, 0.1% Native Hawaiian or other Pacific Islander, 5.3% Multiracial, and 75.6% White. Approximately 46% of students at this school passed

the state standardized achievement testing, compared to the statewide rate of 50% and the school corporation rate of 52%.

The principal assisted with the recruitment of teachers by sending out information to all teachers. Originally five teachers signed up and took the training but two teachers dropped out due to an increase in their responsibilities at the school. Three teachers (all female, one Black, one Native Hawaiian or Other Pacific Islander, and one White) participated in the study by implementing the AME small group discussions and assisting with data collection. The study began in September 2019 and came to an unplanned end in March of 2019 due to the COVID-19 pandemic. K-12 schools across the country were closed to prevent COVID-19 from spreading. Therefore, only one teacher, Erin, completed her participation in the study. Data from the other two teachers will not be reported.

The principal and teachers assisted with identifying students who met one or more of the following criteria: students who (a) had a standardized achievement test score above the 80th percentile in one or more areas and a GPA of 3.0 or lower on a 4-point scale, (b) students who participated in a high-ability or gifted program at one point in time but no longer qualified, or (c) students who felt like they were not achieving as well as they could and therefore self-identified as underachieving. Four students began participating in the study, one Black girl (Lola) and three White boys (Harry, Peter, and Victor). At the time, the school closed due to the COVID-19 pandemic, only Lola had completed her participation in the study. Therefore, she will be the only student for whom I present findings.

Instruments

As in Study One, I used the SAAS-R to collect data on Lola's goal valuation, academic self-perceptions, attitudes toward school, attitudes toward teachers and self-regulation. I also used

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the same training comprehension check with teachers as I did with camp counselors in Study One (See Appendix D). Achievement was measured using GPA and weekly homework and grade checks obtained from teachers. Furthermore, I used the School Engagement Measure (SEM) by Fredricks et al. (2005), and I created a demographics and grade questionnaire, an observation protocol to facilitate daily observations of behavioral engagement, two interview protocols, and a training comprehension check for teachers which I describe below.

School Engagement Measure

I used the School Engagement Measure (SEM; Fredricks et al., 2005) to measure students' engagement. Example items include, "I read extra books to learn more about things we do in school." and "I talk with people outside of school about what I am learning in class." These items are all measured using a 5-point Likert scale. Fredricks et al. (2005) examined the psychometric properties of the SEM with a sample of 661 students. The SEM has three subscales: behavioral, cognitive, and emotional engagement. The subscales have Cronbach's alpha reliability estimates of .77, .82, and .86 respectively. Fredricks et al. (2005) measured concurrent validity via zero-order correlations with perceptions of classroom context; all correlations were significant and in the expected directions. Finally, Fredricks et al. (2005) also conducted an exploratory factor analysis (EFA) and found that all items loaded on to the theorized factors, providing statistical support for the three-factor model.

Demographics and Grade Questionnaire

Participants completed a demographics and grades questionnaire (See Appendix D) before taking part in the small group discussion sessions. This questionnaire included questions about race, gender, age, identification as gifted, status of achievement, and GPA.

Observation Protocol

I created an observation protocol to facilitate observations of students' behavioral engagement in the classroom (See Appendix E). The observation protocol includes nine signals of engaged behavior: concentration; energy; complexity and creativity; facial expression and posture; persistence; accuracy; reaction time; verbal expression; and satisfaction. These signals were adapted from the *Leuvense Betrokkenheidschaal* (Leuven Engagement Scale, Laevers et al., 1994).

Two observers and I trained to establish the percentage interval of engaged behavior during one class period, by reporting engaged behaviors in 5-minute intervals via whole interval recording (i.e., documenting uninterrupted engaged behavior during each interval, Martella et al., 2013). Specifically, we indicated whether students were engaged based on indicators mentioned in the protocol for the whole 5 minutes during each interval or not. If students were only partly engaged (i.e., had a break in engaged behavior) during the 5-minute interval, we would mark it is not engaged. Thus, this recording method provides a conservative estimate of engaged behavior. If a student was not present in the classroom for part of one or more intervals, we would report the students' engagement as missing. At the end of the class period the sum of all the intervals marked as engaged was divided by the total number of intervals to establish the percentage of behavioral engagement the students showed during that class period. The two additional observers were fellow graduate students in educational psychology programs.

Interview Protocols

I created two semi-structured open-ended interview protocols (See Appendix B). I used adapted version of the protocols from Study One. I interviewed both participants once after their participation in the intervention concluded. These interviews each lasted approximately 30 minutes.

Procedures

I collected data on a daily and weekly basis for two targeted behaviors: academic achievement collected through weekly grades and homework checks and behavioral engagement collected through daily observations of on-task behaviors. Data collection started on December 3, 2019 and ended on March 12, 2020. Behavioral engagement data were collected 3 days per week and academic achievement data were collected once a week for a total of 12 weeks. Additionally, I collected data on self-reported behavioral, cognitive, and emotional engagement, self-regulation, academic self-perception, goal valuation, and attitudes toward school via surveys at the start of the intervention and the end of the intervention.

I had set out to combine two single-case designs—a multiple baseline design with a multiple probe design (Martella et al., 2013). The first month of data was used to establish the natural frequency of the targeted behaviors (i.e., baseline, Barlow et al., 2009) before students participated in the small group discussion sessions. After 1 month, the first student (Lola) started participating in the AME small group discussions (See Table 1), while I continued to collect the same daily and weekly data. Lola participated in the AME small group discussion sessions once a week for 1 hour after regular classes ended on Wednesdays. Three weeks after that the second student (Peter) started participating in the AME small group discussions. Finally, 3 weeks after that the last two students (Harry and Victor) left baseline and entered the intervention phase. Data collection from students was set to run from December 2019 until May 2020, but had to be cut short due to the COVID-19 pandemic. The school district decided to close it schools starting March 16, 2020 to avoid spreading the COVID-19 virus among its students. At that time, only Lola had completed the intervention and the interview. Peter had made it to session three of six and Harry and Victor had only completed two sessions. Therefore, I will only present results from a single case, Lola, and have changed the single-case design from a combined multiple baseline/multiple probe design to an AB design.

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What Works Clearinghouse (WWC) created design standards for single-case designs (Kratochwill et al., 2010). AB designs do not meet all design standards because they lack the replication necessary to rule out alternative explanations. Therefore, WWC requires at least four A and B phases (i.e., ABAB designs are the minimum requirement). Table 2 provides an overview of the WWC standards and indicates which of the standards my AB design meets. As shown in Table 2, I meet all but one of the WWC standards. To increase the internal validity, I rely on triangulation across data sources to justify all conclusions drawn and will use caution when interpreting causality.

Table 2 Single-Case Design Standards

Standard	Yes/No
An individual "case" is the unit of intervention and the unit of data analysis. A case may be a single participant or a cluster of participants (e.g., a classroom or community).	Yes
Within the design, the case provides its own control for purposes of comparison. For example, the case's series of outcome variables prior to the intervention is compared with the series of outcome variables during (and after) the intervention.	Yes
The outcome variable is measured repeatedly within and across different conditions or levels of the independent variable. These different conditions are referred to as "phases" (e.g., baseline phase, intervention phase).	Yes
The independent variable (i.e., the intervention) must be systematically manipulated, with the researcher determining when and how the independent variable conditions change.	Yes
Each outcome variable must be measured systematically over time by more than one assessor, and the study needs to collect inter-assessor agreement in each phase and on at least twenty percent of the data points in each condition (e.g., baseline, intervention) and the inter-assessor agreement must meet minimal thresholds.	Yes
The study must include at least three attempts to demonstrate an intervention effect at three different points in time or with three different phase repetitions.	No
For a phase to qualify as an attempt to demonstrate an effect, the phase must have a minimum of three data points.	Yes
Documenting the consistency of level, trend, and variability within each phase	Yes
Documenting the immediacy of the effect, the proportion of overlap, the consistency of the data across phases to demonstrate an intervention effect, and comparing the observed and projected patterns of the outcome variable	Yes
Examining external factors and anomalies (e.g., a sudden change of level within a phase)	Yes

Note. All standards are direct quotes from Kratochwill et al. (pp. 14-16, 2010).

In what follows, I provide a detailed overview of the training, data collection, and data analysis procedures.

Training

Three teachers agreed to implement the 6-hour AME curriculum at their school. These teachers received 3 hours of training on the constructs and implementation of the AME model. The 3-hour training addressed (a) the needs of students who are underachieving, (b) brief skills training on how to guide the small-group discussions, and (c) an overview of the affective curriculum. Because I received feedback from the camp counselors in Study One that they would have liked more skills training, I extended the skills training for teachers by reviewing each session in more detail. I also included a role-play activity, in which I modeled facilitation skills by simulating one of the AME sessions. I had prepared more, based on the feedback from Study One, but the teachers agreed that one was sufficient.

At the end of the training teachers completed a comprehension check to evaluate teachers' understanding of the AME curriculum objectives and had an opportunity to ask remaining questions (See Appendix C).

I trained two additional observers, both were fellow graduate students in educational psychology programs, to use the observation protocol, so that we could establish interobserver agreement. This training involved learning about the different behaviors mentioned in the protocol and practicing scoring using video recordings of middle and high school classrooms. We met on four occasions to practice scoring on six videos. As shown in Table 3, we had 80% agreement or more from the start. However, in trial three we only agreed 30%. The decrease in agreement occurred when the disengagement of the student in the training video increased. We noticed that we had good agreement on what constituted engaged behavior, but were not yet in agreement on

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what constituted disengagement. After discussing in detail, I elaborated the instructions on the observation protocol to reflect more detailed instructions regarding disengagement. We then decided to continue our practice to assure we reached a high agreement consistently and across occurrence and non-occurrence of engaged behavior.

Table 3 Interobserver Agreement for the
Behavioral Engagement Observation Protocol
Training Sessions

Trial number	Time of trial (minutes)	Overall agreement
1	30	83%
2	25	100%
3	50	30%
4	50	80%
5	25	80%
6	30	83%
7	50	100%

Once I started observing Lola, one of my two colleagues conducted second observations in person for 21% of the baseline and 20% of intervention data, which allowed me to evaluate the interobserver agreement continuously. The level of agreement between one of the two observers and me on the student's level of behavioral engagement was 100% across all baseline and intervention sessions.

Quantitative Data Collection Procedures

Observation Data

Before baseline commenced, I conducted whole-interval recording of student behavioral engagement on three separate occasions to establish if the 5-minute increments were reasonable for Lola. No adjustments were made and these data were included for baseline analysis.

During the baseline and intervention phases, Lola was observed three times a week for one class period per day. The observed class period matched the Lola's area of academic underachievement, which was English. We used whole-interval recording to establish the percentage of intervals of engaged behavior during the observed classroom period. Every 5-minutes an observer indicated if the student showed engaged behavior for that interval based on the descriptions in the observation protocol.

Teacher-Reported Data

In addition to the observations, teachers provided information on homework completion and grades on tests and assignments during baseline and intervention phases. Specifically, teachers recorded if students submitted their homework on time and what grades they received for homework assignments and tests. I collected these data weekly.

Survey Data

Before participating in the small group discussion sessions, Lola completed the Demographics and Grades Questionnaire, the SEM, and SAAS-R. Lola also completed the SEM and SAAS-R again right after the last AME session as well as responded to some questions about her experience with the model.

Qualitative Data Collection Procedures

The AME includes reflection assignments (i.e., exit tickets) for students and facilitators. These reflection assignments are completed after each discussion session to help students integrate the concepts addressed and to help teachers record changes they made and questions they have. For example, the student exit ticket included: "What are three things you learned in today's session?" and the teacher exit ticket included: "On a scale from 1 to 10 how well did today's session go? Please explain." These reflection assignments were transcribed for data analysis purposes. As part of the AME model, students also learn self-monitoring strategies that they can apply to help improve their achievement. Therefore, students were asked to bring documentation of the strategies they used during and after the intervention period to the interview for discussion.

Participants were interviewed once for approximately 30 minutes after they completed the discussion sessions to determine the perceived effectiveness of the AME. I created a semi-structured interview protocol (Appendix B) similar to the one used in Study One. Example questions include "Tell me about some things you learned in the small group discussion sessions" for the student and "Tell me what you think students learned from these sessions based on your discussion and interactions with them" for teacher. During the interview, I showed the participants the quantitative data and asked for their interpretation. Specifically, I showed a graph of the behavioral engagement over time, a graph of the achievement over time, and the mean differences in academic self-concept, attitudes toward school, attitudes toward teachers, self-regulation, and self-reported emotional, cognitive, and behavioral engagement. The interviews were audio-recorded and transcribed for analysis.

Data Analysis Procedures

I created a case profile for each participant. Next, I analyzed the interview transcript and reflection documents using guidelines on inductive analysis by Thomas (2006). Specifically, I started by familiarizing myself with the data by reading it several times and bracketing my thoughts through memoing (Tufford & Newman, 2012). I then moved on to highlight passages of interest. Next, I used in vivo and initial coding procedures to identify initial themes and patterns that recurred across the different data sources (Saldaña, 2013). I then organized these initial codes into categories through focused coding (Saldaña, 2013) and reduced categories to those most salient and supported by a variety of data sources. I then merged the focused categories with the quantitative data to create the meta-inference (Creamer, 2018).

The quantitative data analysis started with a visual examination of the graphical data for behavioral engagement and academic achievement. Specifically, I looked at trends and changes by plotting the outcome variables over time, to establish if there were any consistent changes due to students' participation in the AME (Barlow et al., 2009; Martella, et al., 2013). I then conducted a series of descriptive analyses to evaluate variability, level changes, and overlapping data points. Following recommendations by Olive and Smith (2005), I established an effect size by taking standard mean differences for all data points. Specifically, I subtracted the mean of all intervention points from the mean of all baseline points and then divide that mean difference by the standard deviation of the baseline data (Olive & Smith, 2015). Given that the A-B single case design is essentially a one participant time-series quasi-experimental design (Martella et al., 2013), I also conducted an interrupted time-series simulation (ITSSIM) to calculate a more robust effect size. ITSSIM is a Monte Carlo simulation that estimates single-case effect sizes considering level, trend, variability, and autocorrelation (Tarlow & Brossart, in press). ITSSIM, therefore, allowed me to calculate more precise effect size estimates. I used the ITSSIM software (Tarlow, 2018) to simulate

100,000 artificial time-series based on the baseline phase parameter estimates and 100,000 artificial time-series based on the intervention phase parameter estimates.

Finally, I integrated data from the quantitative and qualitative phases and analyzed it to produce a summative, explanatory meta-inference. Using interpretative transparency (Creamer, 2018), I combined and discussed the results from the qualitative and quantitative phases to enhance the understanding of why and how the model worked.

Positionality Statement

Given that I am the primary instrument for data collection and analysis, my biases should be made explicit. I am an international doctoral candidate in the United States and identify as White, Flemish-Belgian, and cis-gender female. I grew up in a working-class household in an urban neighborhood. I created the AME model and its curriculum based on my experiences as a K-16 educator, in which I focused on helping students who were underachieving. I also have personal educational trauma and a history of severe academic underachievement. As an educator and the AME model author, I have my own perceptions of the model, but I was interested in exploring how others perceived the model. Throughout the data collection and analysis, I used memoing to acknowledge and separate my thoughts from those of my participants and I checked interpretations against the data and where possible discussed it with the participants as a form of member checking.

CHAPTER 4 RESULTS

Study One

This section is divided into four parts. First, I provide case profiles for each of the four small groups. The case profiles were created using information from the demographics and grades questionnaire, the interviews with students and camp counselors, and the observation field notes. This information provides essential details that help frame the next three sections. Second, I summarize results from the inductive analysis of the student interviews to answer my first research question: How do students perceive the AME model and its effectiveness? Third, I summarize results from the inductive analysis of the camp counselor interviews to answer my second research question: How do camp counselors perceive the AME model and its effectiveness? Finally, I analyzed the data concerning my quantitative and mixed methods research question. I present data on students' academic self-perception, attitudes toward school, attitudes toward teachers, goal valuation, and self-regulation.

Case Profiles

This study was conducted in a university-based summer enrichment program. Within this program, camp counselors are assigned to a small group of six to eight students. During the first 2-week session, two camp counselors (Kathy and Tana) and 11 students participated in the study. During the second 2-week session, two camp counselors (Grace and Ben) and nine students participated in the study. Table 4 provides an overview of the demographic characteristics of the student sample. Demographic information on camp counselors is detailed in the text below.

Table 4 Demographic Characteristics of the Student Sample

Name*	Ethnicity	Gender	Age	Grade	GPA	Gifted	Under-achieving	Camp Counselor*
Brianna	Black	F	14	8	4.00	1	0	Grace
Chudamani	Indian	M	13	7	3.00-3.24	1	1	Grace
Danny	Native American, Latinx, White	M	13	7	4.00	1	0	Grace
Hannah	Black	F	13	7	3.25-3.49	1	1	Grace
Kendra	White	F	13	7	4.00	1	0	Grace
Praka	Black	M	14	8	3.75-3.99	1	0	Grace
Carl	White	M	13	7	3.50-3.74	1	1	Kathy
Denis	Turk	M	15	8	3.00-3.24	1	1	Kathy
Eve	Black, White	F	14	8	4.00	1	1	Kathy
Michael	White	M	14	8	3.00	1	0	Kathy
Nadia	White	F	14	8	3.75-3.99	1	1	Kathy
Rider	White	M	13	8	3.75-3.99	1	0	Kathy
Sam	Native American	M	13	7	3.50-3.74	1	0	Kathy
Barry	White	M	15	9	3.50-3.74	1	1	Tana
Beau	White	M	16	10	3.00-3.24	1	1	Tana
Cristiano	Latinx	M	15	9	3.00-3.24	1	1	Tana
Gabrielle	Latinx	F	15	9	4.00	1	0	Tana
Aaron	Asian	M	16	10	3.25-3.49	1	0	Ben
Harry	White	M	16	10	3.00-3.24	1	1	Ben
Maria	Latinx	F	16	10	3.50-3.74	1	1	Ben

Notes. *These are pseudonyms. ** 0 = students stated they were unmotivated when it came to school and maintained good grades with minimal effort. 1 = students stated they were underachieving, and it was affecting their participation in gifted programs or their GPA.

Kathy's Group

Kathy (Asian, female), a camp counselor pursuing her degree in elementary education, was responsible for facilitating a group of seven middle school students. All seven students in her group were part of the research study. Kathy had an assistant camp counselor who joined most sessions and observed, but rarely participated. Kathy followed the AME curriculum (Table 1) meticulously. However, she struggled during the first two sessions with managing the group dynamics. She did not feel very confident in her ability to facilitate the group discussions and felt ill-prepared at times. As the sessions went on, I worked with Kathy to better prepare, and things improved rapidly as Kathy's confidence grew. Kathy explained:

> In the beginning, I had a hard time because…I was not sure about what I needed to prepare, but as it went on, as I got to know my group, it was a lot easier. [In my preparation], there were so many points that I skipped over (…), but then when the time came, I was like, oh my gosh, I wish I actually prepped for this. (…) First, I do not think I did a good job starting with establishing a set routine or having them all sit together or even establishing rules (…). All the kids wanted to talk at once; it was hard to regulate the conversation. (…) [Here is what I changed:] I had [students] sit in a square, instead of letting them sit wherever they wanted to. We used a talking ball, so then whoever had the ball could talk, and if you did not, then you could not talk. (Individual interview, July 15, 2019)

Students made similar observations. Nadia and Eve pointed out the chaotic start and how it improved over time. All students spoke very highly of Kathy and talked about having an enjoyable experience, in which they learned a lot. Students evaluated their camp counselors as part of the post-camp survey. On that survey, there were four questions directly asking about their counselor and the counselor's competence regarding small-groups. Kathy's students evaluated her positively; she received an average of 4.70 out of 5.00.

In conclusion, although she had some struggles at the onset, Kathy's fidelity of implementation was high. She managed to create a meaningful and positive experience for her students (cf. individual interviews with her students).

Tana's Group

Tana (White, female), a camp counselor with a Bachelor's degree in counseling psychology, was responsible for facilitating a group of eight high school students. Of those eight students, four were participants in the study: Barry, Beau, Cristiano, and Gabrielle. Tana followed the AME curriculum meticulously as well. Tana and her students described a positive group dynamic. Gabrielle, Cristiano, and Barry regularly participated in the discussions, but Beau resisted participation at times. For example, in Beau's reflection notebook, he wrote: "[I want to] stay in my room during these meetings." On a different occasion, Tana recalls he refused to participate, she said: "He would not speak to me and did not want to say why, what was wrong or what was going on. He just sat in the back and did not respond. I think that [it had to do with something] outside of what was in the group" (Tana, individual interview, July 15, 2019).

Overall, the small group sessions went well. The students enjoyed talking with each other and learning about the topics at hand. Tana summarized: "I think it was great. There were some days that they were not really into the stuff or that they were more talkative, chatty, and excited about whatever that's going on, but I think overall, it went pretty well." Tana's counselor evaluations were good, she received five out of five for all questions from all students, other than Barry. Barry rated Tana at a four out of five for her communication skills.

In conclusion, Tana's fidelity of implementation was excellent. She had a group of engaged students, who spoke positively about her and the small group dynamic. Besides Beau's occasional refusal to participate, there were no other issues during these sessions.

Grace's Group

Grace (White, female), a counselor pursuing her degree in elementary education with research experience in gifted education, was responsible for facilitating a group of eight middle

school students. Of those eight students, six were part of this research study: Brianna, Chudamani, Danny, Kendra, Hannah, and Praka. The two other students were international students who spoke English as a second language. Grace followed the AME curriculum mostly with some changes here and there to add some team-building activities. She did skip some activities entirely in favor of an alternative she created. For example, Grace skipped the self-monitoring activity and tools as outlined in the AME curriculum. Instead, she had students watch a video of the monkey business illusion and had a guided discussion about the video and connected that to self-monitoring. At the end of the session she handed out the AME self-monitoring worksheets and suggested students review the worksheets in their free time. Grace was able to handle the group dynamic well. She described the group as "pretty motivated" (Individual interview, July 28, 2019).

Grace's students evaluated her positively; she received an average evaluation score of 4.80 out of 5.00 by her students. During the individual interviews, the students agreed that she was very nice, and they enjoyed the small group discussion time. In conclusion, Grace's fidelity of implementation was fair, and she managed to create a positive and safe environment for students.

Ben's Group

Ben (White, male), a counselor pursuing his degree in secondary education, was responsible for facilitating a group of eight high school students. Of those eight students, three were part of this research study: Aaron, Harry, and Maria. Ben made many changes to the AME curriculum: "(…) for every single lesson that you gave me, there was at least one part of what you had suggested that I used, but I almost always came up with something completely different as well." (Individual interview, July 27, 2019). Ben had a hard time facilitating the small group sessions. He struggled to build relationships with his students; Ben said: "I know that I made a lot of my group distinctly

uncomfortable to the point of tears in at least three different affective curriculums." (Individual interview, July 27, 2019).

One of Ben's students was a counselor in training. The role of a counselor in training was ill-defined, and that caused some confusion for Ben and the students. It affected the group dynamic because it was unclear when and how this counselor in training should participate in those small groups. Ben said this caused a "storming phase" within his small group (Individual interview, July 27, 2019).

Ben also had to handle several conflicts among his students that required him to deviate from the planned activities. For example, at the start of week two, Ben decided he needed to start over with his group because the group dynamic was tarnished by conflict: "[In session 4] I almost completely deviated from [the topic] and took time to set a foundation so that the next day, I could discuss [the topic] with them, and I could be certain that they would be willing to be receptive to it." (Ben, individual interview, July 27, 2019).

Aaron, Harry, and Maria were involved in some of the group conflicts, which, in their opinion, was not handled well by Ben. For example:

> I think one more negative experience I had was, we had a small conflict inside of our small group, which I was a part of, and instead of having the counselor come to me and ask if it would be okay to use me as an example, he put me on the spot and made me very distressed emotionally. (Maria, individual interview, July 26, 2019)

Nevertheless, they spoke highly of Will for the most part. Overall, Ben's relationship with his students ranged from fair to good. Maria said the overall relationship was "very positive" (Individual interview, July 26, 2019). Aaron described the relationship as "not necessarily close, but I am familiar with him. He's understanding, cares." (Individual interview, July 27, 2019). Harry and Ben had a more challenging relationship. Harry mentioned feeling intimidated by Ben. Harry

also mentioned feeling uncomfortable in the small group discussions and not wanting to share. However, when I asked about the overall relationship, Harry was fairly positive:

> He was chill, I really like [Ben]. (…) When I had to talk about my experiences as a trans person, he was open to it, and he explained his background and how he'd never really experienced that himself or anything like it for that matter. (…) He assumed some things, but later, he apologized if he assumed some things and asked if he was right, which I think he should have done before. (Individual interview, July 28, 2019)

Harry gave Ben an average of four out of five on the counselor evaluation, whereas Maria and Aaron both gave Ben a five out five. Ben agreed that he did not handle things in the best way. He summarized his experience as follows:

> I think that about half of the sessions went very positively, about half of them went pretty negatively. I think a lot of that was not actually on the curriculum. I think a lot of that was completely based on the individual characters that were represented within my group. I think about half of them in the group were not ready for the approach that I took to the curriculum. I think maybe I was somehow too direct, and that brought up thoughts and feelings to them that were uncomfortable to handle. I did not address it well enough so that they were able to handle those feelings. (Individual interview, July 29, 2019)

Ben frequently changed the set-up of his small-group discussion sessions. The first two sessions were conducted in a classroom, where students were instructed to sit in a circle. Later sessions were conducted outside and ranged in the set-up. Ben deviated from the whole group discussion and increasingly used paired discussion, where he would walk from group to group to check in on students. He stopped using the guided discussion format and omitted the whole-group discussion entirely toward the end of the sessions.

In conclusion, Ben struggled throughout the 2 weeks. The group dynamic never fully restored, and the students were only exposed to parts of the AME curriculum. Ben's fidelity of implementation was poor.

Student Perceptions

To evaluate students' perceptions of the AME model, I analyzed students' individual interviews and their additional comments on the post-camp survey. I used inductive analysis to analyze the interview data and divided my findings into four sections: nodes regarding (a) the perceived AME effects, (b) the AME experience, (c) lessons and strategies learned, and (d) specific feedback.

Perceived AME Effects and the AME Experience

Table 5 provides an overview of my inductive coding process. Lessons learned were omitted from the table because I used focused coding and pre-existing labels (i.e., session topics) to code the data. The specific feedback was omitted from this table as well because I only used initial coding. Continuing with focused and axial coding would have been futile, given that so few participants gave feedback or suggestions for improvement.

Table 5 Inductive Coding Process

In-Vivo/Initial Coding	Focused coding	Axial Coding
	AME's Effects	**AME's Effects**
AME made me believe I will do better in school	AME improved my academic self-perception	AME improved my academic self-perception
AME positively changed my beliefs about my academic achievement		
I will push myself harder		
I will seek out more challenge now	AME improved my motivation	AME improved my motivation
AME increased my motivation		
AME was helpful		
AME will help me with my long-term goals	AME was helpful/useful	
Overall, AME helped		
AME strategies will help me do better in school		AME was useful
I will apply the AME strategies	I will apply AME strategies	
AME will improve my achievement	AME will improve my achievement	
I gained insight into my underachievement	AME helped me gain better understanding of my underachievement	
I realized I have not been studying enough	AME helped me gain better understanding of my underachievement	
AME did not change my beliefs about my academic achievement	AME did not improve my academic self-perception	AME did not improve my academic self-perception
AME s useful for others, not for me	AME was not useful	AME was not useful
AME is not useful (I already knew it)	AME was not useful	AME was not useful
I did not learn much		

Table 6 provides an overview of the axial code references by students. The results indicate that most students (65%) found the AME sessions enjoyable. Students mentioned they enjoyed the topics and connecting with their peers. For example, Praka, Michael, and Chudamani all mentioned that the sessions were fun. Gabrielle described her experience as enjoyable: "I enjoyed it a lot this year. I did not mind going to small group, which is something I did not want to do in the past. I thought it was good. (…) I liked it." (Individual interview, July 13, 2019).

The social aspect, specifically the sharing of experiences, hearing other's perspectives, and talking about these topics, were mentioned as one of the most useful components of the AME model. Thirteen students (72%) referenced learning from other's experiences and perspectives and sharing their own as a valued experience. Cristiano mentioned: "It feels good. Because most people have the same problems too. You feel like [they] empathize." (Individual interview, July 13, 2019). Hannah took some time to open up: "At first, I was quiet, but then people started opening up and telling their thoughts, so it helped me open up too to talk about what I thought we were talking about, so I liked it" (Individual interview, July 27, 2019). And Nadia said:

> It was really interesting and cool because I would give my ideas. I could hear ideas that I would have never thought of before. (…) Just the ideas and the opinions people brought into the groups were very different from the ones I originally had. I thought I was just down just because I could not get the concepts, or I was just too lazy to do it. I just was not very-- What is the word? I was not accepting of my failure. (Individual interview, July 17, 2019)

Several students (45%) considered the AME sessions to be useful in general. Carl said:

> I think that in the background of all the fun, it was actually a lot of learning, and it actually helped a lot with self-confidence and actually following through on things that I've got to do (…) I believe that this year I will be able to do things a lot better than I was, given now I have more tools. (Individual interview, July 15, 2019)

Specifically, 12 students (60%) felt the AME sessions had improved their academic self-perceptions. For example, Eve said: [I learned] I had more strengths than I realized (Individual Interview, July 13, 2019). Eight students (40%) mentioned they were more motivated to do better

in school after participating in these sessions, as illustrated by what Michael said: "I feel like maybe

I will do a lot better, because I have more motivation, because of my goals. I need good grades for

that, so personally, I have to work a lot harder" (Individual interview, July 13, 2019).

Aaron and Danny did not find the AME sessions useful, although they agreed that for others,

it might have been. Danny mentioned he discussed the AME topics regularly with his parents, and

Aaron said:

> I feel like, for me, a person that's already dealt with depression and had to get my
> way out of that, it is not as impactful, but I understand why it is impactful to other
> people. To me specifically, it was not really that much of anything because a lot of
> these lessons I have already learned. (Individual interview, July 27, 2019)

Table 6 Axial Codes by Case

	Name	AME improved my academic self-perception	AME improved my motivation	AME was useful	AME did not improve my academic self-perception	AME was not useful	I enjoyed the AME sessions	Learning from other's experiences and sharing my own	Total
Grace	Brianna	1	0	0	0	0	1	1	3
	Chudamani	1	0	1	0	0	3	0	5
	Danny	0	0	0	1	1	1	0	3
	Hannah	1	0	0	0	0	1	4	6
	Kendra	1	2	0	0	0	1	2	6
	Praka	0	0	0	1	0	1	0	2
Kathy	Carl	3	1	1	0	0	1	0	6
	Denis	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
	Eve	1	2	0	0	0	1	4	8
	Michael	1	1	1	0	0	3	1	7
	Nadia	1	1	2	0	0	0	3	7
	Rider	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
	Sam	2	0	3	0	0	2	0	7
Tana	Barry	0	0	3	0	0	1	0	4
	Beau	0	0	1	0	0	0	1	2
	Cristiano	1	1	0	0	0	0	1	3
	Gabrielle	3	1	1	0	0	2	2	8

Table 6 continued

Ben	Aaron	0	0	0	1	4	0	3	8
	Harry	0	0	0	1	0	0	0	1
	Maria	1	1	2	0	0	1	2	7
	Cases (References)	12(17)	8(10)	9(15)	4(4)	2(5)	13(19)	11(24)	93

Lessons and Strategies Learned

Table 7 provides an overview of the references made to the various lessons and strategies by each student. Self-monitoring strategies and goal setting strategies were mentioned the most, by 65% and 60% of participants, particularly from Kathy and Tana's groups. This may be because Grace deviated from the lesson plan for the session on self-monitoring, and Ben did too. At least eight out of 18 students referenced each lesson or strategy. Therefore, the results indicate that there were no sessions considered useless across the board.

Aaron, Beau, Danny, and Harry referenced the least lessons learned. Aaron and Danny both said they did not learn much because they were already familiar with the topics. Beau did not enjoy the sessions. He did not like the talking aspect and would have preferred more hands-on activities such as creating the paper toolbox. Harry had some identity struggles that made it hard for him to focus on these motivational topics.

Noticeably, Ben's group (i.e., Aaron, Harry, and Maria) mostly referenced goal setting and no other strategies or lessons. Ben's low fidelity of implementation likely influenced this. From the observation field notes, it seems that Ben made a decent attempt to implement the goal setting lesson plan as outlined in the curriculum, which could explain why that is the main lesson students learned.

Table 7 Number of References to Lessons and Strategies Learned by Session and Case

	Name	Positive self-perception	Goal-setting	Self-Monitoring	Learning	Resilience/Perseverance	Positive self-talk	Total
Grace	Brianna	0	2	1	0	4	1	8
	Chudamani	0	1	0	1	1	3	6
	Danny	3	0	1	0	0	0	4
	Hannah	0	2	0	1	1	3	7
	Kendra	1	5	1	2	1	2	12
	Praka	2	0	0	2	2	1	7
Kathy	Carl	3	0	2	0	2	0	7
	Denis	N/R	N/R	N/R	N/R	N/R	N/R	N/R
	Eve	1	3	4	0	1	0	9
	Michael	0	0	4	0	4	0	8
	Nadia	2	2	2	1	1	0	8
	Rider	N/R	N/R	N/R	N/R	N/R	N/R	N/R
	Sam	1	0	2	1	0	3	7
Tana	Barry	0	1	2	1	2	0	6
	Beau	0	2	0	0	0	0	2
	Cristiano	0	1	3	1	1	1	7
	Gabrielle	0	4	3	3	0	1	11
Ben	Aaron	0	0	1	0	0	0	1
	Harry	0	2	1	0	0	0	1
	Maria	1	4	0	0	0	0	5
Cases (References)		8(14)	12(29)	13(27)	9(13)	11(20)	8(15)	118

Students were also asked about what they learned in the AME sessions in the post-camp survey. Academic self-perceptions or the talent toolbox tool and goal setting strategies were mentioned the most (eight times each) in the post-camp survey. The session on resilience (I thought I could, and I did) was referenced four times, and there were three references to self-

monitoring, three references to the learning zone activity, and two references to the final session on positive self-talk. These results, along with the results from Table 6, indicate that goal setting and self-monitoring were the most useful tools for these students.

From the post-camp survey, it was also clear that Rider and Harry did not enjoy the AME sessions. Rider suggested "[offering] an alternative to small groups," and Harry said: "The affective curriculum was not very fun or educational. I would not do something like that again if I had the choice." Rider chose to opt-out of the interview, so I do not have detailed feedback from him. Harry was in Ben's group, and Ben struggled with managing the group dynamic and implementing the curriculum as it was written. Moreover, from Harry's interview, it also became clear that Harry was struggling with his identity. Harry is a transgender male and mentioned that his counselor, Ben, made some incorrect assumptions about him and did not always handle his needs adequately. Harry also mentioned that he had non-academic goals related to his gender identity that were his only priority. Therefore, he did not find it useful to learn about learning-goals until he had reached his personal goal:

> [Addressing my gender identity goals will] allow me to focus on other things.
> Maybe like improving my life. I have to get that out of the way first because it
> feels like it is keeping me from doing a lot of things. It distracts me during school
> and stuff. (Harry, individual interview, July 28, 2019)

Specific Feedback

Finally, I asked students for their feedback on the AME curriculum. Ten students offered suggestions for improvements and 10 did not. Barry, Cristiano, and Maria (high school students) suggested I add a session on stress management or emotional regulation. Kendra and Beau suggested incorporating more hands-on activities, instead of only the reflection worksheets and the talking components. Beau and Sam also suggested breaking up the sessions into shorter fragments throughout the day, whereas Praka suggested longer sessions. Table 8 provides an overview of the feedback I received and by whom.

Table 8 Student Feedback to Improve AME Curriculum

Feedback	Names
Add stress management/ emotional regulation	Barry, Cristiano, & Maria
Add hands-on activities	Beau & Kendra
Sessions were too long	Beau & Sam
Sessions were too short	Praka
Drop "Bounce Back" activity	Maria
Drop "Talent Toolbox" activity	Aaron
Keep opening rounds	Danny
Sessions were repetitive	Sam
Summer is not a good time for AME	Harry

Counselor Perceptions

To evaluate counselors' perceptions of the AME model, I inductively analyzed counselors' individual interviews and my notes from debriefing sessions. Because there were only four counselors to implement the curriculum, and one had poor fidelity, I chose to present these results thematically and not in tables. I identified four main findings: (a) counselors liked the AME curriculum (b) counselors thought the AME curriculum positively affected students' self-perceptions, (c) self-monitoring and goal-setting were most valuable and most challenging, and (d) counselors wanted more skills training.

Counselors' Liked the AME Curriculum

Counselors agreed that the AME curriculum was well written and an improvement over previous curricula. Three of the four counselors had experience with previous affective curriculum at the camp. For example, Grace mentioned that she particularly liked the structured outline of the curriculum. She appreciated the flexibility provided through alternative

suggestions for activities. She mentioned the curriculum was an improvement over the book they used at the camp the year before: "I liked that it had an outline of what to do and then it had several different suggested activities so that you can pick and choose. (…) It gave me ideas and set topics to talk about." (Grace, individual interview, July 28, 2019) Kathy agreed, and she thought it was relevant to the needs of her students:

> I feel like I really like this curriculum better than last year's because I felt like last year's [curriculum] was kind of hard because it was like a book that I was reading and then sometimes I would not understand it, and I did not really know how to teach them. I feel like this was really straight forward, but also very relatable for the kids. Because I feel they are at that age where it's like, okay, we can start thinking about what you want to do, goals that you want to achieve, and how we can work towards those goals. I feel this is very relevant in what the kids' needs are really like. (Kathy, individual interview, July 15, 2019)

Tana spoke positively about the curriculum as well. She particularly liked the opening rounds: "I liked how every day we talked about something that we learned and a challenge that we had because the kids, some of them had a lot of similar challenges" (Tana, individual interview, July 15, 2019). Ben, however, thought this curriculum would have worked better when integrated with academic content. He said:

> One thing that I thought of is, this would be- pardon the word, I do not have a better one right now, but this would be a really good insidious curriculum. Something that you just casually put on the side of a classroom. Let us say that I'm teaching chemistry …. I would teach them different study habits using your curriculum as a model for how they can apply it to their whole life because it is my personal opinion that schools are not meant to teach subjects. They are meant to teach people how to be effective and good-natured citizens (Individual interview, July 27, 2019).

The AME Curriculum Positively Affected Students' Self-Perceptions

Grace, Kathy, and Tana agreed that students' positive self-perceptions increased over the various sessions. Tana mentioned that the session on positive self-perceptions was one of the more useful sessions for her students. She said her students responded really well to the talent toolbox session in which they had to identify their strengths. Grace and Kathy mentioned that the AME sessions worked particularly well for increasing students' self-esteem and

confidence: "I think that it positively impacted their self-esteem." (Grace, individual interview, July 28, 2019) and "I feel like in general, a lot of them had more confidence in themselves." (Kathy, individual interview, July 15, 2019).

Self-Monitoring and Goal-Setting were Most Valuable and Most challenging

Interestingly, the sessions on self-monitoring and goal-setting were perceived as the most valuable by Tana and Kathy, yet the most challenging by Ben and Grace. Kathy and Tana mentioned students responded well to the self-monitoring and goal-setting sessions. Both mentioned students implemented the strategies immediately after the sessions, and Kathy even had students discuss the self-monitoring progress with her outside of small group:

> I really like the self-monitoring one. I feel like that was the first lesson where I felt the students were actually really interested because a lot of them even asked for [copies of the self-monitoring worksheets]. Some of them like- I know one of the students actually used this. She was sharing her thoughts, which was really beneficial, and then the other kids were able to see oh, wow, this is useful. (…) They even talked about how they can apply it in their school (Kathy, individual interview, July 15, 2019).

Grace, however, thought students were not responding as well to the goal-setting session as some of the other topics. She mentioned that she thought it might have to do with her students being in middle school still. She said: "Reaching their goals, I do not think my [middle schoolers] got there yet as far as following steps, because it seemed a little bit more superficial than the other topics that we talked about" (Individual interview, July 28, 2019). The self-monitoring session did not go as well as Grace had hoped. She reflected:

> I think self-monitoring was the one…. where I felt the least confident in it because the kids do that just in general, but they do not realize that they are doing it. If I used the worksheet, it would have been better. I am not sure how much they ended up getting out of that, and that was probably just because of my facilitation that they did not get as much out of it. (Grace, individual interview, July 28, 2019)

Ben's sessions on self-monitoring and goal setting were challenging, he deviated from the curriculum, and it did not work out as he intended. Therefore, Ben found those sessions one of

the more challenging ones. He also suggested it might be because he is a very self-motivated person and, therefore, personally struggled with how to relate to the content of these sessions.

Counselors Wanted More Skills Training

All counselors evaluated the training positively. However, Grace and Ben both suggested more skills training. They would have enjoyed more simulations and more examples of how small-groups should be facilitated. From some of the struggles Kathy had, I believe she would have benefitted from additional skills training as well.

The AME model training included one simulated activity where a colleague and I took on the role of facilitator and modeled strategies to facilitate the discussion with counselors playing the role of student. Counselors found this experience useful but would have liked to go through all six sessions, instead of just one. Because of this feedback, I had set up debriefing sessions with the counselors in the study. In those debriefing sessions, we discussed the session of the day in detail and went over suggestions and questions counselors had. We discussed specific situations that occurred in previous sessions and how to handle those. Counselors thought they were helpful, but Grace suggested it would have been even more helpful to have a debriefing session with all the counselors as well:

> Having the meetings helped a lot because you forget, especially if you do training, and you are not doing the first session…. It is a lot of information thrown at you at one time. I think that it would help a lot to break it up. Debriefing [with all counselors] about affective curriculum would be helpful to have…. so that we could have to bounce ideas off each other. (Individual interview, July 28, 2019)

Quantitative Results

I examined the hypotheses that students' academic self-perception, attitudes toward school, attitudes toward teachers, goal valuation, and self-regulation would improve after participating in the AME curriculum. Students placed themselves on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree) for each of these targeted behaviors. Due to the

small sample size ($n = 20$), this study was underpowered to detect true effects of the intervention for generalization purposes. Therefore, the quantitative results of this study focused on descriptive analysis and standardized mean differences (i.e., Cohen's *d* calculated using the SD of the difference score) to evaluate the effectiveness of the AME model at the individual level. As expected, I found that the AME sessions had small, positive effects on students' academic self-perceptions ($MD = 0.122$, $SD = 0.621$, $d = 0.196$) and attitudes toward teachers ($MD = 0.139$, $SD = 0.848$, $d = 0.164$). The results showed almost no change in attitudes toward school ($MD = 0.080$, $SD = 1.327$, $d = 0.060$) and no change in goal valuation ($MD = 0$, $SD = 0.721$, $d = 0$). Finally, contrary to my expectations, I found a moderate, negative effect on self-regulation ($MD = -0.620$, $SD = 1.346$, $d = -0.460$). Both the lack of change in goal valuation and the negative effect on self-regulation contradict the qualitative findings.

There is considerable variability among the individual students, which may contribute to the small effect sizes and the lack of change in goal valuation. Therefore, I present some merged qualitative and quantitative results in Figure 2. Figure 2 shows the pre-scores, post-scores, and mean differences in academic self-perception, attitudes toward school, attitudes toward teachers, goal valuation, and self-regulation for each student. These quantitative data are accompanied by some qualitative data to help explain some of the results. Data in rectangle boxes indicate student quotes from the individual interviews. Data in clouds indicate information from observations I made. For example, Brianna rated herself much lower on goal valuation and self-regulation, yet mentioned in the interview that the goal-setting session affected her the most. Similarly, Nadia scored lower in self-regulation, yet references the value of the goal setting and self-monitoring strategies she learned during the interview. Nadia mentioned: "It makes you more aware. (…) I knew I was not motivated. I did not know to what extent and how to fix it" (individual interview, July 17, 2019). Therefore, it is possible that students gained self-awareness through the AME session and thus had more self-awareness

when they completed the post-survey compared to when they completed the pre-survey. This could potentially explain some of the negative effects.

Pre-Test, Post-Test, and Mean Differences for Academic Self-Perception (ASP), Attitudes toward Teachers (ATT), Attitudes toward School (ATS), Goal Valuation (GV), and Motivation/Self-Regulation (MRS)
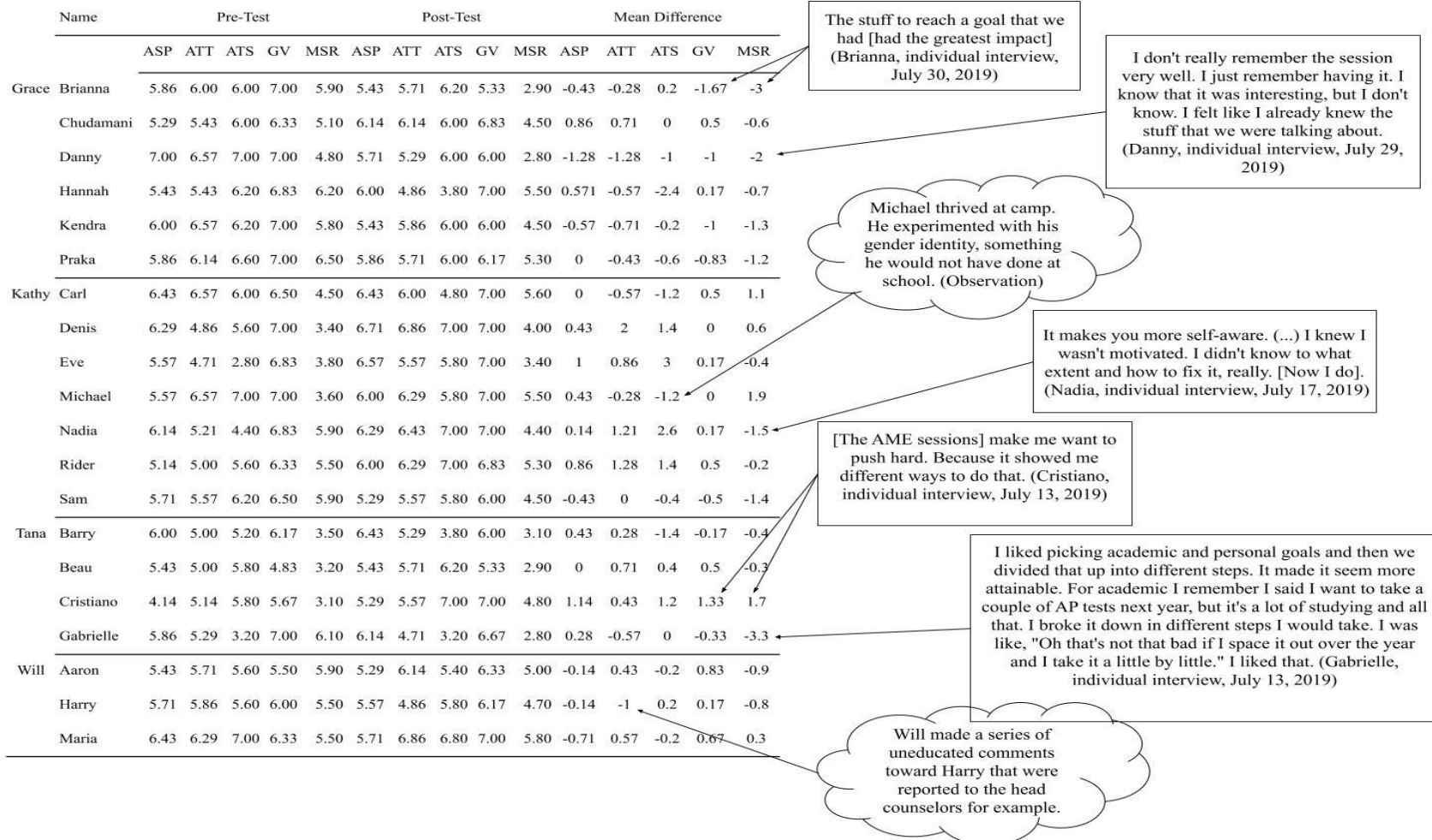
Name		Pre-Test					Post-Test					Mean Difference				
		ASP	ATT	ATS	GV	MSR	ASP	ATT	ATS	GV	MSR	ASP	ATT	ATS	GV	MSR
Grace	Brianna	5.86	6.00	6.00	7.00	5.90	5.43	5.71	6.20	5.33	2.90	-0.43	-0.28	0.2	-1.67	-3
	Chudamani	5.29	5.43	6.00	6.33	5.10	6.14	6.14	6.00	6.83	4.50	0.86	0.71	0	0.5	-0.6
	Danny	7.00	6.57	7.00	7.00	4.80	5.71	5.29	6.00	6.00	2.80	-1.28	-1.28	-1	-1	-2
	Hannah	5.43	5.43	6.20	6.83	6.20	6.00	4.86	3.80	7.00	5.50	0.571	-0.57	-2.4	0.17	-0.7
	Kendra	6.00	6.57	6.20	7.00	5.80	5.43	5.86	6.00	6.00	4.50	-0.57	-0.71	-0.2	-1	-1.3
	Praka	5.86	6.14	6.60	7.00	6.50	5.86	5.71	6.00	6.17	5.30	0	-0.43	-0.6	-0.83	-1.2
Kathy	Carl	6.43	6.57	6.00	6.50	4.50	6.43	6.00	4.80	7.00	5.60	0	-0.57	-1.2	0.5	1.1
	Denis	6.29	4.86	5.60	7.00	3.40	6.71	6.86	7.00	7.00	4.00	0.43	2	1.4	0	0.6
	Eve	5.57	4.71	2.80	6.83	3.80	6.57	5.57	5.80	7.00	3.40	1	0.86	3	0.17	-0.4
	Michael	5.57	6.57	7.00	7.00	3.60	6.00	6.29	5.80	7.00	5.50	0.43	-0.28	-1.2	0	1.9
	Nadia	6.14	5.21	4.40	6.83	5.90	6.29	6.43	7.00	7.00	4.40	0.14	1.21	2.6	0.17	-1.5
	Rider	5.14	5.00	5.60	6.33	5.50	6.00	6.29	7.00	6.83	5.30	0.86	1.28	1.4	0.5	-0.2
	Sam	5.71	5.57	6.20	6.50	5.90	5.29	5.57	5.80	6.00	4.50	-0.43	0	-0.4	-0.5	-1.4
Tana	Barry	6.00	5.00	5.20	6.17	3.50	6.43	5.29	3.80	6.00	3.10	0.43	0.28	-1.4	-0.17	-0.4
	Beau	5.43	5.00	5.80	4.83	3.20	5.43	5.71	6.20	5.33	2.90	0	0.71	0.4	0.5	-0.3
	Cristiano	4.14	5.14	5.80	5.67	3.10	5.29	5.57	7.00	7.00	4.80	1.14	0.43	1.2	1.33	1.7
	Gabrielle	5.86	5.29	3.20	7.00	6.10	6.14	4.71	3.20	6.67	2.80	0.28	-0.57	0	-0.33	-3.3
Will	Aaron	5.43	5.71	5.60	5.50	5.90	5.29	6.14	5.40	6.33	5.00	-0.14	0.43	-0.2	0.83	-0.9
	Harry	5.71	5.86	5.60	6.00	5.50	5.57	4.86	5.80	6.17	4.70	-0.14	-1	0.2	0.17	-0.8
	Maria	6.43	6.29	7.00	6.33	5.50	5.71	6.86	6.80	7.00	5.80	-0.71	0.57	-0.2	0.67	0.3

The stuff to reach a goal that we had [had the greatest impact] (Brianna, individual interview, July 30, 2019)

I don't really remember the session very well. I just remember having it. I know that it was interesting, but I don't know. I felt like I already knew the stuff that we were talking about. (Danny, individual interview, July 29, 2019)

Michael thrived at camp. He experimented with his gender identity, something he would not have done at school. (Observation)

It makes you more self-aware. (...) I knew I wasn't motivated. I didn't know to what extent and how to fix it, really. [Now I do]. (Nadia, individual interview, July 17, 2019)

[The AME sessions] make me want to push hard. Because it showed me different ways to do that. (Cristiano, individual interview, July 13, 2019)

I liked picking academic and personal goals and then we divided that up into different steps. It made it seem more attainable. For academic I remember I said I want to take a couple of AP tests next year, but it's a lot of studying and all that. I broke it down in different steps I would take. I was like, "Oh that's not that bad if I space it out over the year and I take it a little by little." I liked that. (Gabrielle, individual interview, July 13, 2019)

Will made a series of uneducated comments toward Harry that were reported to the head counselors for example.

Figure 2 Merged Results of Students' Perceptions

The Ongoing Development of the AME Model

I received valuable feedback from counselors and students in Study One regarding their experiences with and perceptions of the AME model. Therefore, I made several changes to the AME model before implementing it again in Study Two. First, I extended the skills training component of the AME training for group facilitators by incorporating more skills training in the form of simulations and examples of how to run each AME session instead of just one. Second, I updated the curriculum to add more prompts and guiding questions for each activity. Third, I formalized the exit tickets for both students and facilitators. Originally, exit tickets were designed as a question posed by the facilitator. This was changed to an exit ticket worksheet with several questions designed to help students reflect on what they learned. Moreover, for Study One there were no exit tickets for facilitators, only an in person debriefing session. For Study Two, I included formal exit ticket worksheets for facilitators so that they could reflect on each session and share their thoughts with me or a mentor as needed. Fourth, I added time allotment and increased the structure of the curriculum outline. I updated and clarified instructions based on feedback from the observations and counselor interviews. Finally, I updated the introduction section of the curriculum with more tips on how to facilitate small group discussions to provide additional skills training.

Study Two

This section is divided into three parts. First, I provide a detailed case profile of Lola. The case profile was created using information from the demographics and grades questionnaire, the interviews with Lola and Erin (Lola's teacher), and the reflection documents. Lola's case profile provides results concerning my first research question: How do students perceive the AME model and its effectiveness?

Second, I provide a case profile of Erin, Lola's teacher. This case profile was created using information from the training evaluation, Erin's reflection documents, the fidelity of

implementation checks, and Erin's interview. Erin's case profile provides results concerning my second research question: How do teachers perceive the AME model and its effectiveness?

Third, I analyzed the data concerning my quantitative and mixed methods research question. I present Lola's behavioral engagement data and achievement data to evaluate improvements. I then present data from the pre/post measures of academic self-perceptions, self-regulation, goal valuation, attitudes toward school, attitudes toward teachers, and self-reported emotional, cognitive, and behavioral engagement. I merged each of these quantitative findings with qualitative data to help further explain the results.

Case Profile for Lola

Lola was a 12-year-old Black girl in sixth grade. Generally, Lola was described as a sweet and sociable girl by her teachers when she was nominated for this study. She was involved in several school clubs and after school activities, including speech team, student council, and dance. Teachers nominated Lola for this study because she used to participate in the district's gifted/honors program and did not qualify this year. This is a common early sign of underachievement and could lead to more severe or absolute underachievement if it is not resolved. Lola expressed disappointment about no longer being in the accelerated classes, but also expressed relief because the pressure was off. Lola mentioned she was underachieving in English. She said she was not trying her best and could have done much better. Talking too much in class, not paying attention, and procrastinating homework assignments were the main aspects contributing to her underachievement.

Lola can be classified as a relative underachiever, with a GPA of 3.8/4.0 and NWEA scores of 85 for reading, 91 for language, compared to classroom grades of a B in English and at the start of the study. These data suggest a discrepancy in Lola's expected achievement (via NWEA as a standardized measure) and her actual achievement (via class grades). Based on

Lola's reading and language scores, we can expect her to achieve at the top of her class, mainly because the school average NWEA for reading and language were 64.

Since Lola was underachieving in English, we observed her behavioral engagement and recorded her weekly achievement in her English class. There was no assigned seating in the class so she would move seats from time to time but always sat by the same two girls. Lola seemed sociable. During baseline observations, Lola would talk a lot with her friends throughout class time. Lola also had a shy or more reserved side. Erin, her AME teacher, said:

> She is so sweet…. She, at first, was a little bit more reserved in terms of being open about whatever it was that she was writing and talking about (…), but yes, she opened up a lot more. (Individual interview, March 4, 2020)

Lola was very open to participating in the study. She was particularly interested because the University organized it, and she felt like it could help her improve. She was in an AME small group with one other girl, whom she already knew and considered a friend: "I felt more comfortable too because she is one of my friends. It was just more comfortable.… because we trust each other" (Lola, individual interview, March 4, 2020). Lola did not think she learned from hearing her friend's experiences but acknowledged that sharing her own experiences helped.

Overall, Lola enjoyed the AME sessions. During the interview, she referenced positive self-talk and activities focused on boosting positive self-concept the most in terms of what she learned from the AME sessions and strategies she was applying successfully. She mentioned paying attention in class, resilience strategies, and goal setting frequently as well. In terms of goal setting strategies, it seems she is still focused on performance goals only. She did not identify any mastery goals: "When I grow up, I want a job, and I want to do something that I actually enjoy. So, I want to get into a good college that will allow me to be able to do that" (Lola, individual interview, March 4, 2020)

Contrary to the assignment, this is a very general and performance-oriented goal. During the sessions, she did not come up with a step-by-step plan for how to reach her goal. So, although she references learning about goal setting frequently, it does not seem she has mastered the objective. Erin, Lola's AME teacher, thought Lola struggled the most during this session on goal setting:

> I thought [the goal-setting session] was probably the hardest lesson for [Lola] in particular. I feel like as middle schoolers, sometimes, it is really hard for them to see longer-term goals. I felt like I was pulling teeth with [Lola] to get her to come out with something, [chuckles], but [the other student] too because it was so broad. Their goals were very broad, like good relations. Okay. How can we make that very specific? That is something that I think I need to work on, too, for this next session that I am going to do." (Erin, Individual interview, March 4, 2020)

Erin thought students needed more time to think about this, and the 1-hour sessions did not allow for that. Erin suggested, "priming at the end of session #1 for goal creation would be great" (Erin, reflection document, January 29, 2020).

Lola made several references to self-monitoring and planning strategies as well. Often these self-monitoring strategies involved setting reminders on her phone and using her planner to encourage her to study more. She made no references to learning strategies covered in the curriculum, even after probing. Based on her recollection during the interview and feedback from the reflection assignments, I can conclude she learned the least during the session on learning strategies (session 5), where students discussed the comfort zone, learning zone, and panic zone as well as self-directed learning. Table 9 gives an overview of how frequently Lola mentioned each theme in her interview.

Table 9 Lola's lessons learned from AME

Theme	References
Positive self-talk, self-perceptions	8
Paying attention in class	6
Resilience	6
Goal setting	6
Self-monitoring	5

Case Profile for Erin

Erin (White, female) has a bachelor's degree in secondary education and 3 years of teaching experience. This was her first year working at the school. She taught 7th-grade social studies. Erin did not have a license or a certificate in gifted education. She volunteered for the research project because she was particularly interested in achievement motivation and working with students in a small group setting.

Erin found the AME training session valuable. After the training, she rated her confidence regarding the small group facilitation at a nine out of 10. She rated her knowledge on the AME curriculum at a nine out of 10 as well. She rated the overall usefulness of the training at a 10 out of 10. Before and after the training, teachers filled out two small case study activities. Teachers were asked to describe how they would respond to a situation that might occur in their small group sessions. These activities were designed to evaluate the effectiveness of the training. Erin's responses were accurate and referenced the topics discussed in training. Erin seemed to have a good understanding of the needs of students with gifts and talents. When I asked her what she learned from participating in the training and implementing the AME curriculum, she said:

> I think I have always thought [students with gifts and talents] needed to be challenged…. Especially in a generalized course, I think that students that are gifted and talented need to be challenged, or else they get bored. When they get bored, they get unmotivated. When they get unmotivated is when you see the grades go [down]. (…) In a way, I think that [the AME model] made me realize

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that you cannot put students into a box. Just because you have five students who are gifted and talented does not mean that all five students are going to respond to certain situations in the same way. (…) I think it has made me realize that my personal experiences versus someone else's personal experiences could be totally different. (Individual Interview, March 4, 2020)

Erin spoke positively about the curriculum itself. She detailed her preparation process as follows:

Not a single lesson did I change. Obviously, I would study the script beforehand. I stuck to the script but with my wording if that makes sense. (…) [The curriculum] was really simple. It was laid out really well. Say this, do that. I would go through and highlight. (…) I would write notes to myself, like maybe use this example here, and some of the stuff, my teaching style as well in the classroom is not making stuff up on the fly, but going with the flow. I can prepare as much as I want on the front end, but if a kid asks a question off the wall, I am a pretty open book, which is probably pretty good for this study in terms of examples. (Individual interview, March 4, 2020)

She thought the 6-week format was suitable. "I think it is a good length. It is not too long; it is not too short. I felt like I had time to get to know them, get comfortable with them." (Erin, individual interview, March 4, 2020). Similarly, she seemed to think that 1 hour per session was sufficient as well: "I thought that it was really realistic. There were a couple of days where it was a little bit close to time, but we never once went over. I never once felt like we did not get what we needed to get done." (Erin, individual interview, March 4, 2020).

Erin was observed twice across the 6 weeks to check the fidelity of implementation. I observed her for sessions two and four. In each session, I rated her fidelity of implementation as high. She made minor changes to make it more authentic and gave examples from personal experience where needed, but she did not make significant changes. She did not deviate from the planned curriculum and its topics and activities. Erin's weekly reflections were positive. She consistently rated her confidence and knowledge at or above an eight out of 10. She scored each overall session at or above an eight out of 10 as well.

Interestingly the session she rated the lowest (eight out of 10) was the session on goal setting, which was a session in which Lola struggled to master the objective. Erin did particularly well in connecting the various topics across sessions. For example, Erin referenced

strengths and skills mentioned in the toolbox when students were developing a plan to reach

their goal and took time each session to reflect on the past week and the progress they made

toward their goals and target behaviors for self-monitoring. Table 10 provides an overview of

Erin's weekly reflections and the fidelity of implementation checks I conducted for sessions

two and four.

Table 10 Overview of Erin's Weekly Reflection and Fidelity of Implementation (FOI)

Session	Confidence level	Knowledge level	Overall Score	Notes
1	8	10	9	"I feel confident facilitating, but as I get to know the kids more closely, it will be easier" (Erin, reflection document, January 22, 2020).
2	9	8	8	"Thinking of tangible goals was hard for the girls" (Erin, reflection document, January 29, 2020). FOI: High. Erin followed the script with minor adjustments in language and follow up questions.
3	10	10	9	"Using apps to track behaviors, the girls relate well to that with phones" (Erin, reflection document, February 5, 2020).
4	8	9	9	"I got a little confused on one of the videos, but that was my fault" (Erin, reflection document, February 12, 2020). FOI: Remains strong. She made a small change in the end. She had students write down notes to themselves to remind them of their small goals this week.
5	10	9	10	"The girls really enjoyed the comfort zone picture. I felt like they really learned the importance of being challenged." (Erin, reflection document, February 19, 2020).
6	10	10	10	"The girls did a great job applying the resilience content to realistic life experience." (Erin, reflection document, February 26, 2020).

Erin thought the conversation aspect of the AME sessions had the most significant impact on students:

> As a teacher, I feel like relationships are one of the most impactful ways that you can reach students. (…) If students know that you care about them and that you can relate to them in some way, shape, or form, then they are going to be a lot more open to you. Not just like talking, but they will be a lot more open to learning because they know that you care, they know that you are intentional with them, they know that you can relate to them. I think that that was something that the conversation was a really good thing. (Individual interview, March 4, 2020)

Erin believed that the conversations helped build a positive relationship among her and the students. From what Lola said in her interview, it seems that Erin and Lola did have a good relationship, which could explain the increase in Lola's attitudes toward teachers.

Erin liked the session on positive self-talk the most: "I thought that that was a really beneficial session for two girls in middle school." (Erin, individual interview, March 4, 2020). When she talked about session five, she did not reference the critical points of that session correctly. Erin said:

> When we talked about getting out of the comfort zone and why it is good getting out of the comfort zone. Like you can never change if you don't leave your comfort zone, but on the other hand, how far is too far. You do not want to be-- It is good to be uncomfortable, but it is not good to be in a bad situation. (individual interview, March 4, 2020)

Session five, My Learning Process, My Rule, was designed to have students reflect on what tasks, actions, knowledge, and skills lie in their comfort zones, learning zones, and panic zones. The goal of the activity was to help students reflect on what levels of challenge they should look for to reach their learning zone. This would then help them identify the next steps in reaching their larger goal and would provide a segue into exploring appropriate self-directed learning strategies. From how both Lola and Erin discussed this session, it seems that the discussion focused much more on the idea of being uncomfortable than on exploring those learning strategies.

Erin believes that the students learned the most in the session on self-monitoring and how to set a small goal and work toward it. They had in-depth discussions on how to plan and monitor progress. Erin would check in with them weekly and evaluate their progress and take time to reflect on the self-monitoring strategies students were using. Erin did say: "I do not know if they will continue to do it without someone on their back about it, but they could. I am not 100% on that one." (Individual interview, March 4, 2020)

Erin saw positive changes in Lola's behavior, motivation, and self-esteem across the 6 weeks:

> I think that [Lola], she was never a bad student or whatever. It seems that her motivation has increased. (…) I have seen the improvement in her percentages. I assume that means better motivation. (Individual interview, March 4, 2020)

Erin also said that she would no longer label Lola as an underachiever, having seen how she is doing after her participation in the AME curriculum (Erin, individual interview, March 4, 2020). Thus, Erin found the AME curriculum effective in resolving Lola's underachievement.

Data on Achievement Motivation and Attitudes

The AME model aims to increase achievement motivation. Achievement motivation was operationalized as the combination of engagement, achievement, goal-valuation, academic self-perception, and self-regulation. Therefore, behavioral engagement and academic achievement were the two target behaviors monitored daily and weekly before, during, and after Lola's participation in the AME sessions. Moreover, self-reported goal-valuation, academic self-perceptions, self-regulation, behavioral, emotional, and cognitive engagement were collected through surveys at the start and end of the AME sessions.

Behavioral Engagement

Lola's behavioral engagement was recorded through whole interval recording. The goal of the study was to see Lola's behavioral engagement increased and reached as close to 100% as possible. Figure 2 shows Lola's behavioral engagement over time, together with two quotes from Lola's individual interview (March 4, 2020) to help interpret the quantitative results.

As shown in Figure 3, there were three conditions, baseline, intervention, and post-intervention. Post-intervention data collection was cut short due to COVID 19; therefore, I had only 1 week (three data points) of data for that phase. Thus, I combined intervention and post-intervention data for further analysis. There were 16 data points recorded in the baseline phase and 19 data points recorded in the intervention and post-intervention phase combined. The AME sessions were held on days 17, 20, 23, 26, 29, and 31. Day 13 (100% engaged during baseline phase) and day 19 (11% engaged during intervention phase) were determined as outliers and removed for analysis.
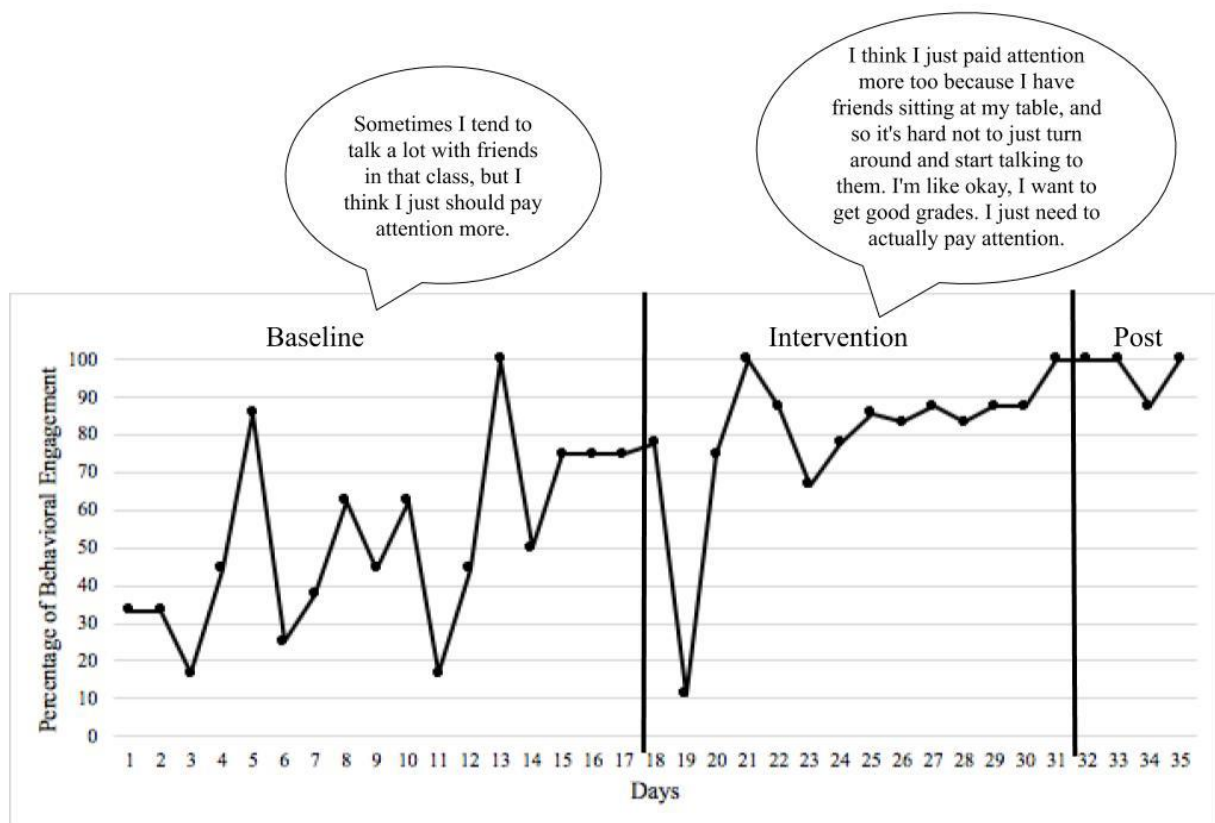
Figure 3 Lola's Behavioral Engagement

Using a combination of visual and statistical analyses (see Table 11), I determined that the data were variable within each condition. However, the data were much more stable during the intervention condition, as indicated by a more stable trend on the graph, a smaller standard deviation, and a smaller range.

Table 11 Descriptive Statistics of Behavioral Engagement

	Baseline	Intervention
Mean(SD)	46.89(24.18)	82.06(19.07)
Median	44.44	85.71
Range with outlier omitted	[16.00; 85.00]	[66.00; 100.00]

All level change measures indicated a positive or improving change across conditions, see Table 12. The initial drop in behavioral engagement on day 19, as shown in Figure 3, was likely due to having a substitute teacher that day. Observation notes show the majority of students were not engaged during that particular session. Furthermore, due to the nature of the intervention, I did not expect to see an immediate increase in behavioral engagement once Lola entered the intervention. The first session is introductory, so I only expected to see changes after a few sessions. In Lola's case, there is a positive increase in her behavioral engagement after session 3 (day 23).

Table 12 Overview of the Different Types of Level Change for Behavioral Engagement

	Relative Level Change	
	Baseline	Intervention
Median first half	33.33	75.00
Median second half	50.00	87.50
Relative level change	16.67	12.50
	Absolute Level Change	
	Baseline	Intervention
First value	33.00	75.00
Last value	50.00	100.00
Absolute level change	17.00	25.00
	Mean Level Change	
	35.17	
	Median Level Change	
	41.27	

I calculated the percentage of non-overlapping data (PND) and the percentage of overlapping data (POD) after omitting the two outliers (87.5% in the baseline condition and 11.11% in the intervention condition). The PND and POD showed that there was a 0% overlap

of behavior observed during baseline and intervention, indicating a very effective treatment (Scruggs & Mastropieri, 1998).

Finally, I used two different techniques to calculate effect sizes. First, I used the standard mean difference to calculate the effect size as recommended by Olive and Smith (2005). The standard mean difference is calculated by subtracting the baseline mean from the intervention mean and dividing that by the baseline standard deviation. Lola's standard mean difference (i.e., effect size) was 1.45, which confirms that the AME sessions had a large, positive effect on Lola's behavioral engagement. Next, I used interrupted time-series simulation (ITSSIM) to calculate a more robust single-case effect size. The ITSSIM results indicated that the average improvement during the intervention phase, accounting for level, trend, variability, and autocorrelation, was statistically significant and showed a large, positive effect as well, $d =$ 1.224, $p < .001$. This is in line with the standard mean difference I reported above. The simulated change trend explained 26.4% of the variance in behavioral engagement, accounting for level, trend, variability, and autocorrelation. In conclusion, Lola's behavioral engagement positively and statistically significantly changed when the AME intervention was provided.

Academic Achievement

Lola's academic achievement was recorded through weekly English grades, as reported by her English teacher. The goal of the study was to see Lola's academic achievement increase and reach as close to 100% as possible. Figure 4 shows Lola's academic achievement in English over time, along with a quote from Lola's individual interview (March 4, 2020) to help interpret the quantitative results. There were four recordings in the baseline phase and eight recordings in the intervention and post-intervention phase combined.
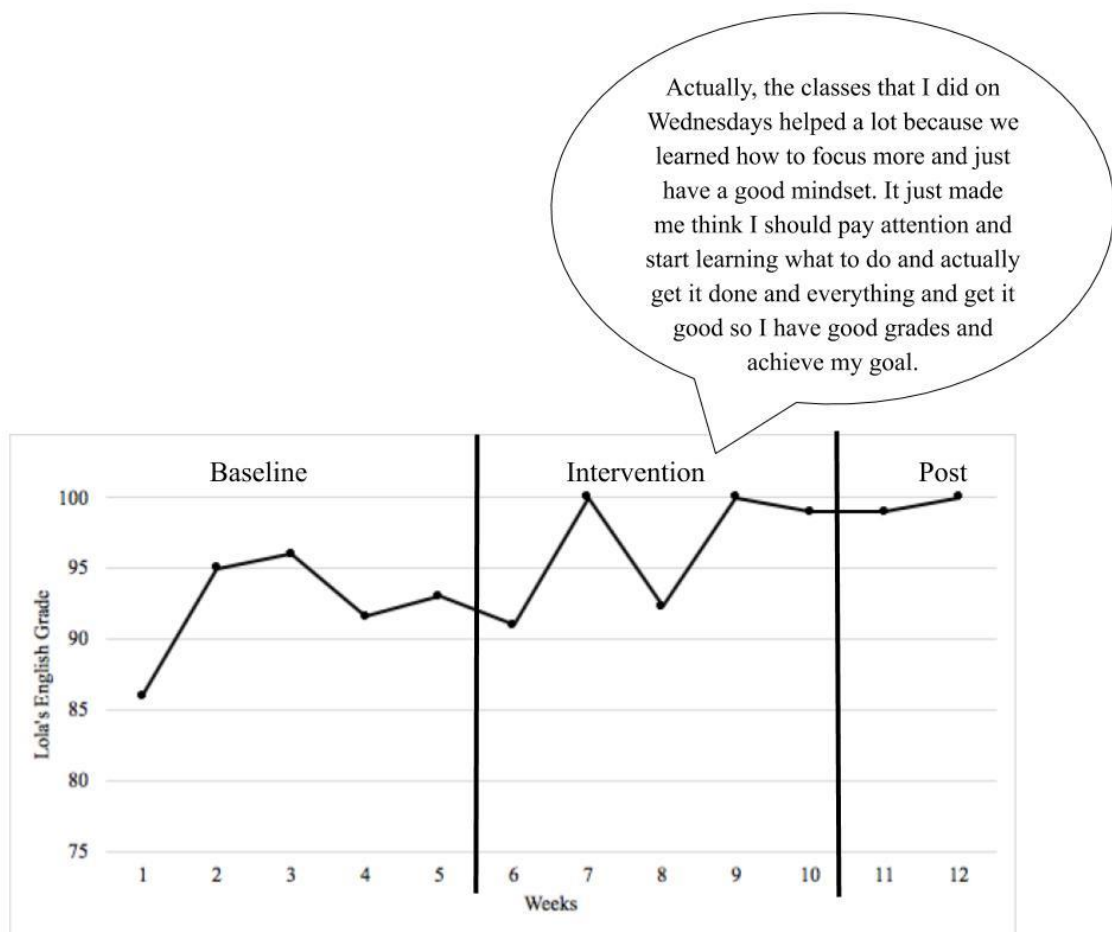
Figure 4 Lola's Achievement

Lola's achievement data are variable during the baseline and intervention conditions. This can be observed in the graph and by looking at the range and standard deviations in Table 13. The achievement did get more stable toward the end of the intervention/post-intervention phase, as indicated by a more stable trend on the graph, a smaller standard deviation, and a smaller range.

Table 13 Descriptive Statistics for Academic Achievement

	Baseline	Intervention
Mean(*SD*)	92.32(3.92)	97.33(3.92)
Median	93.00	99.00
Range	[86.00; 96.00]	[91.00; 100.00]

All level change measures, except the relative level change, indicated a positive or improving change across conditions, see Table 14. The relative level change indicates a small decline in achievement within the baseline condition. The graph shows three data points in the counter therapeutic direction as well; therefore, I conclude that there was a decreasing contra-therapeutic trend during baseline and an increasing trend in the therapeutic direction during the intervention. Similarly, to the behavioral engagement graph, we see a slight delay in increased achievement here. The nature of the intervention can again explain this. The consistency in achievement toward the end, along with the positive level changes, indicates that Lola's achievement increased once the AME intervention was provided.

Table 14 Overview of the Different Types of Level Change for Academic Achievement

	Relative Level Change	
	Baseline	Intervention
Median first half	95.00	96.15
Median second half	92.30	99.00
Relative level change	-2.70	2.85
	Absolute Level Change	
	Baseline	Intervention
First value	86.00	91.00
Last value	93.00	100.00
Absolute level change	7.00	9.00
	Mean Level Change	
	5.01	
	Median Level Change	
	6.00	

The PND and POD showed that there was a 28% overlap of behaviors observed during baseline and intervention, indicating an effective treatment (Scruggs & Mastropieri, 1998).

Finally, I used the standard mean difference to calculate the effect size. Lola's standard mean difference for achievement was 1.28, which indicates a large, positive change in Lola's achievement after she started participating in the intervention.

Academic Self-Perception, Attitudes toward School and Teachers, Goal Valuation, Self-Regulation, and Self-Reported Engagement

Academic self-perception, attitudes toward school and teachers, goal valuation, self-regulation, and self-reported behavioral, emotional, and cognitive engagement were measured via surveys at the start and end of the AME sessions.

Lola scored high on academic self-perception; attitudes toward school and teachers; goal valuation; and self-regulation before the AME sessions, see Table 15. As expected, Lola's academic self-perception increased after participating in the AME sessions, with a mean difference of 0.57. The variance also decreased from the pre-test to the post-test indicated she answered more consistently. Particularly, her beliefs about her own intelligence and her beliefs about school being easy for her. This is in line with what she discussed during the interview as well:

> In the beginning, like the first session when we had to … say something good about ourselves. That is when I did not really have the best mindset ever, so it helped to remind me that I am good at some things, and I have a talent. (…) [The aspect of these sessions that had the greatest impact on me was] the good mindset again. to remind myself that I am good at things, I have talent, and to keep my head up and not give up. (Lola, individual interview, March 4, 2020)

Similarly, Lola's attitudes toward school increased overall as well (*MD* = 1.00). Particularly, being glad to go to this school increased. However, she reported she no longer strongly agreed that this school is the right fit for her. In the interview, Lola seemed to enjoy school, particularly the extracurricular activities and clubs that the school offers. She did express an interest in moving up to the accelerated or honors program again, so it is possible that this influenced her feelings regarding the school being the right fit for her. However, the reader should note Lola went from strongly agreeing to agreeing with the statement, so it is

possible that this was not a meaningful difference for Lola. Given the range restriction inherent to working with Likert scale data, there was little room for growth since Lola scored high on the pre-test. There was no change in Lola's attitudes toward teacher because she the restricted range prevented growth as well. Lola reported seven out of seven both before and after participating in the AME sessions.

Contrary to my expectations, Lola's goal valuation did not improve (*MD* = -0.67). As shown in Table 15, this is due to one item. Lola reported a five-point decrease on one of the goal valuation items. Before the AME sessions, she strongly agreed that doing well in school was important for her future career goals. However, after the sessions she disagreed with the statement. From both my observations and my interviews with Erin and Lola, I know that Lola struggled in the goal-setting session. She kept changing her long-term goal and never gave a definite answer about what her career goals are, which affected Erin's ability to help Lola connect Lola's current school experience to Lola's long-term career goal(s), which could explain this decrease. Lola also showed some decreases in her self-reported self-regulation (*MD* = -0.40). These differences could be explained by increased self-awareness. The AME curriculum focusses on recording behaviors such as time spent on homework and studying. In the interview Lola mentioned that she could work on her self-regulation more: "I just need to tell myself more because I did not set a lot of reminders. (…) I have been doing my homework every day, but just not procrastinating, just being able to get right to it" (Individual interview, March 4, 2020).

Table 15 *Lola's responses to the SAAS-R*

Item	Pre	Post	Xpre-Xpost
Academic Self-Perceptions			
I am intelligent.	4	5	1
I can learn new ideas quickly in school.	7	7	0
I am smart in school.	6	7	1
I am good at learning new things in school.	7	7	0
School is easy for me.	5	7	2
I can grasp complex concepts in school.	7	7	0
I am capable of getting straight A's.	7	7	0
M(SD)	6.14(1.21)	6.71(0.75)	0.57(0.78)
Attitudes toward Teachers			
My classes are interesting.	6	6	0
I relate well to my teachers.	7	7	0
I like my teachers.	7	7	0
My teachers make learning interesting.	7	7	0
My teachers care about me.	7	7	0
I am self-motivated to do my schoolwork.	7	7	0
I like my classes.	7	7	0
M(SD)	6.86(0.38)	6.86(0.38)	0
Attitudes toward School			
I am glad that I go to this school.	6	7	1
This is a good school.	7	7	0
This school is a good match for me.	7	6	-1
I like this school.	2	7	5
I am proud of this school.	7	7	0
M(SD)	5.80(2.17)	6.80(0.45)	1.00(2.35)

Table 15 continued			
Item	Pre	Post	Xpre-Xpost
Goal Valuation			
I want to get good grades in school.	7	7	0
Doing well in school is important for my future career goals.	7	2	-5
Doing well in school is one of my goals.	6	7	1
It's important to get good grades in school.	7	7	0
I want to do my best in school.	7	7	0
It is important for me to do well in school.	7	7	0
M(SD)	6.83(0.41)	6.17(2.04)	-0.67(2.16)
Self-Regulation/Motivation			
I check my assignments before I turn them in.	7	7	0
I work hard at school.	7	6	-1
I am self-motivated to do my schoolwork.	7	7	0
I complete my schoolwork regularly.	7	7	0
I am organized about my schoolwork.	7	7	0
I use a variety of strategies to learn new material.	7	6	-1
I spend a lot of time on my schoolwork.	7	5	-2
I am a responsible student.	7	7	0
I put a lot of effort into my schoolwork.	7	7	0
I concentrate on my schoolwork.	7	7	0
M(SD)	7(0)	6.6(0.70)	-0.40(0.70)

Lola's self-reported behavioral, emotional, and cognitive engagement are reported in Table 16. Contrary to her observed behavioral engagement, which improved when the intervention started, Lola showed no change in her self-reported behavioral engagement. The restriction of range may explain this finding.

Contrary to my expectations, Lola's overall mean differences for cognitive ($MD = -0.20$) and emotional engagement ($MD = -0.17$) also did not show improvement. Lola' emotional engagement was affected by one item, she rated her boredom in school (emotional engagement) at a six out of seven ahead of the intervention and a five out of seven after the intervention. This could be explained by the fact that Lola felt she could handle a higher level of challenge in her courses. Lola said she felt relieved not to be in the honors program anymore before she started the intervention. However, now she feels she is ready to apply again and she beliefs she could succeed in the honors program: "I'm actually getting better, so I hope that maybe next year I'll be able to be in accelerated classes" (Lola, individual interview, March 4, 2020). Regarding cognitive engagement, Lola had initially indicated she strongly agreed that she studies regularly for her classes even when she does not have a test, but after the intervention she indicated she neither agreed nor disagreed. Similarly, she lowered her self-evaluation from a seven to a five for the item "If I don't understand what I read, I go back and read it over again." These drops in cognitive engagement could be the result of increased self-awareness due to the intervention since one of the AME sessions focusses on self-monitoring behaviors related to studying and homework completion.

Table 15 Lola's answers to the School Engagement Measure

Behavioral Engagement	Pre	Post	Xpre - Xpost
I follow the rules at school.	7	7	0
I get in trouble at school. (Reversed)	7	7	0
When I am in class, I just act as if I am working. (Reversed)	7	7	0
I pay attention in class.	7	7	0
I complete my work on time.	7	7	0
	7(0)	7(0)	0(0)
Emotional Engagement			
I like being at school.	7	7	0
I feel excited by my work at school.	6	6	0
My classroom is a fun place to be.	7	7	0
I am interested in the work at school.	7	7	0
I feel happy in school.	7	7	0
I feel bored in school.	6	5	-1
	6.67(0.52)	6.5(0.84)	-.016(0.41)
Cognitive Engagement			
I check my schoolwork for mistakes.	7	7	0
I study at home even when I don't have a test.	7	4	-3
I try to watch TV shows about things we do in school.	3	7	4
When I read a book, I ask myself questions to make sure I understand what it is about.	7	7	0
I read extra books to learn more about things we do in school.	6	5	-1
If I don't know what a word means when I am reading, I do something to figure it out.	6	7	1
If I don't understand what I read, I go back and read it over again.	7	5	-2
I talk with people outside of school about what I am learning in class.	7	7	0
	6.25(1.39)	6.13(1.25)	-0.13(2.10)

The Ongoing Development of the AME Model

The teacher and student in Study Two gave valuable feedback regarding their experiences and perceptions of the AME model. I intend to make additional changes based on their suggestions as well. First, I will tailor exit tickets more to the individual topics. Second, I will also weave the goal-setting objective more explicitly through the various sessions. For example, I will include instructions to address this at the end of session one and I will add reminders throughout the future sessions to explicitly build on the goal-setting session as we move forward. I will make changes to the session on learning strategies. I will clarify the objectives and the instructions and I will shorten this session to allow for deeper reflection on one activity instead of doing two activities too superficially. Finally, I am exploring new topics to address within the AME and opportunities to make the curriculum more flexible in its use. For example, I plan to create additional sessions covering new affective topics. I am also exploring possibilities of adding a pre-test that would allow to identify specific needs of students. This information could then be used to select the six sessions a student would benefit from most, instead of having students participate in more sessions, not all of which would be relevant to each student.

CHAPTER 5 DISCUSSION

Merged Findings and Meta Inference

In Study One, most students (65%) found the AME sessions enjoyable and mentioned that sharing thoughts and learning from their peers' experiences and input was valuable. These findings are in line with what Jen et al. (2017) and Peterson and Lorimer (2011) found when they implemented an affective small group curriculum for students with gifts and talents. Jen et al. also found that students' self-confidence increased after participating in a small group affective curriculum intervention for students with gifts and talents. This is similar to the findings of my studies, which show the AME sessions had small, positive effects on students' academic self-perceptions. In Study One, the quantitative survey results and the counselor feedback indicated the AME sessions positively affected students' self-perceptions. This is confirmed in Study Two, where Lola (student) and Erin (teacher) perceived the AME sessions most beneficial for Lola's academic self-perception, and Lola showed an increase in her self-reported academic self-perception.

Self-monitoring and goal-setting strategies were frequently mentioned as lessons learned by students in Study One and Study Two. The counselors and teachers also perceived these two sessions to be the most useful, yet the most challenging to teach. Findings from both studies indicated that middle school students struggled with identifying long-term learning goals. These findings contradict the success Rubenstein et al. (2012) had with a goal valuation intervention for resolving underachievement among middle school students. However, Rubenstein et al. (2012) focused primarily on goal-setting over 6 to 9 weeks; thus, one session on goal setting might not have sufficed for students. The teacher from Study Two suggested students needed more time to think about their goals and priming students at the end of the first session to start thinking about goals might help.

The quantitative results from both studies showed no improvement in goal valuation and self-regulation after participating in the AME sessions. This is contrary to findings from Ruban and Reis (2006), who suggested self-regulation interventions can be beneficial for underachievers, and Rubenstein et al. (2012) found positive results using goal valuation interventions. However, as discussed with Lola during the individual interview, it is possible that she gained insight into self-regulation during the AME sessions and therefore was more self-aware while filling out the post-survey as compared to how she filled out the pre-survey. Lola might have overestimated her self-regulation before learning about those concepts. Students in Study One might have had a similar experience. Alternatively, the pre-survey could have served as a learning event, which affected students' reporting in the post-survey.

Lola's achievement and engagement in her English class statistically significantly increase once she participated in the AME sessions. These findings align with previous research. In the Achievement Orientation Model, Siegle et al. (2017) suggested that self-efficacy or confidence in one's ability to succeed will positively affect students' achievement and engagement. Desmet et al. (2020) and Peterson and Jen (2018) also suggest that a focus on students' sense of self would resolve underachievement. Thus, Lola's increased positive self-perceptions and increased self-awareness might have contributed to her increased achievement. Ruban and Reis (2006) also suggested that teaching students' self-regulation strategies would promote academic achievement. Erin thought Lola learned the most from the self-regulation session, which could explain Lola's increased achievement. Moreover, the Peterson Proactive Developmental Attention Model is built on a body of research suggesting that small group discussion interventions on affective topics can positively affect students' achievement (Peterson & Jen, 2018). Although I found positive, statistically significant changes in Lola's behavioral engagement once she participated in the AME sessions using the observation data, Lola reported no change in her behavioral engagement. Lola also reported small decreases in

some items on the emotional and cognitive engagement subscales before and after the AME sessions. The results indicate that Lola reported high behavioral engagement before the start of the AME sessions. Yet, the classroom observations show she was not engaged most of the time during baseline observations. Therefore, we should exercise caution when interpreting her self-reported engagement data.

Each AME lesson or strategy was referenced by at least eight out of 18 students in Study One. Thus, all AME sessions were perceived as relevant and useful by different students. Overall, the combined results indicate that the AME sessions had different effects for different students. Although most students seemed to have benefitted from their participation, some students did not. Most noticeably, students in Study One who showed the most decreases in academic self-perception, attitudes toward school, attitudes toward teachers, goal valuation, and self-regulation after participation, were all students who indicated they were not underachieving. Brianna, Kendra, Praka, Gabrielle, and Danny all mentioned that they were maintaining good grades at school while putting forth minimal effort. It is possible that the needs of these students were different from the objectives targeted in the AME curriculum. Existing literature suggests that these students lack challenge in school, which may cultivate a fixed mindset and a fear of failure when they are eventually confronted with more challenging work (Snyder & Linnenbrink-Garcia, 2013). Therefore, these particular students might have benefitted more from an intervention involving curriculum compacting or acceleration and enrichment intended to challenge students adequately and stimulate their interests (Stoeger et al., 2014; Wigfield & Eccles, 2000), along with an affective intervention focused on specific needs such as a potential fear of failure (e.g., Obergriesser & Stoeger, 2015; Preckel et al., 2006; Richardson et al., 2012) or perfectionism (e.g., Matthews & McBee, 2007; Reis & McCoach, 2002, Peterson, 2001).

Limitations

The studies had several limitations. First, Study One was conducted at a summer enrichment program setting, in which three of the four counselors were pre-service teachers with little field experience. Although the AME model includes a training component, the skills training is limited. Therefore, the model does require some prior knowledge and skills in terms of discussion facilitation. Not all pre-service teachers felt confident in their abilities, which affected their fidelity of implementation at times and, thus, the results of the study. I was able to intervene and offer additional support to counselors as needed, which helped most of them. However, due to a variety of factors, Ben's fidelity of implementation remained weak. Counselors suggested I incorporate more skills training through simulations and examples of how to run each AME session instead of just one. Therefore, I made updates to the AME training before implementing it for Study Two. I increased the amount of time spent on a detailed review of the AME curriculum and provided more guided questions in the curriculum itself. I was prepared to implement more than one simulation or role-play activity, but all five teachers, who participated in Study Two's AME training, agreed that one role play was sufficient, and they felt confident to proceed with the intervention.

Second, Study One was also conducted during the summer months when students were not in school, and students had an AME session every other day. Therefore, students did not always have an opportunity to immediately implement all strategies and work toward academic goals. Moreover, I was unable to collect follow up data from students once they started school to see if and how they were using the strategies and their effects on their achievement and engagement. In the school-based study, I encouraged the teacher to set goals for specific strategies Lola should implement in between sessions, and they would evaluate progress on those strategies weekly. This could have been added at the camp as well, although students would have only have had a few days to implement the strategies instead of a few weeks.

Third, the use of self-reported data is a limitation as well. Self-reported data from youth, and particularly low-performers, is generally not as reliable and valid as data collected through more objective measures (Teye & Peaslee, 2015). As mentioned above, students could have gained self-awareness through their participation in the AME sessions that affected how accurately they reported data in the pre- and post-surveys. The pre-test could have been a learning event, or there might not have been enough time between administrations to see the true effects of the AME session.

Fourth, another limitation inherent to using surveys with Likert scales is that this comes with a restriction of range. Students who start out with high scores, inevitably reach a ceiling as the measures do not allow for growth beyond the seven points. For example, Lola has a range of 5.8-7.0 on factor scores in Study Two. There was little room for substantial, measurable gain in this case. Readers should note that several students in Study One also showed no change because they scored high on the pre-test for a variety of items.

Fifth, a limitation of the AME model itself is that it is not tailored to individual affective needs. The AME model targets goal-setting, self-regulation, and positive self-talk, when students are underachieving for reasons unrelated to these targeted behaviors, they would likely not benefit as much from participating.

Finally, Study One had a limited sample, and the results showed large variability among students. Similarly, single-case designs, such as the one I used in Study Two, inherently have limited external validity, given that the goal of these studies is not to draw generalized conclusions. By providing detailed information about the setting, participants, and procedures, I allowed readers to conclude the transferability of the findings of both studies to their context. Furthermore, it is difficult to draw valid causal inferences from an AB design because it is difficult to rule out alternative explanations for the observed effects. This was somewhat counteracted by using triangulation and interrupted time-series simulations, yet, future research

involving the original multiple-baseline design would increase the reliability and validity of the findings. Conclusions of single-case designs and studies with small samples are always tentative and subject to ongoing replication.

Suggestions for Future Research

Future researchers should evaluate the long-term effects of the AME intervention. Moreover, research focused on how a 2-week residential enrichment program format compared to the 6-week school-based format could be insightful. Furthermore, future researchers could incorporate additional data collection to detail students' experiences in the enrichment component of the camp and improve the connection between the affective curriculum objectives and the enrichment courses students take while at the camp. For example, simply adding more prompts to the AME curriculum to encourage students to apply strategies during camp might affect their use of those strategies. Future research efforts can extend the AME curriculum to include other affective needs, such as sessions on stress management and emotional regulation, as suggested by students in Study One. Efforts could also focus on more tailored initiatives to help individual students resolve their underachievement and focus on the combination of enrichment and affective support by integrating the camp's affective and enrichment components more. Finally, research on the AME model with a variety of participants is necessary to further establish its effectiveness in resolving academic underachievement.

Implications

The results of this study showed that many students might have benefitted from their participation in the AME sessions in a summer enrichment setting. It was shown to have potentially positive effects in a school-based format as well. Therefore, these two studies' findings offer some valuable insights for summer program directors and school administrators.

Implementing an affective curriculum model with a well-designed training and support component, focused on positive self-perceptions, goal-setting, and self-monitoring may assist students in resolving their academic underachievement if and when students' needs match the behaviors and skills targeted in the affective curriculum.

Conclusion and Final Reflections

The results of these two studies on the AME model are promising as they indicate preliminary support for the AME model's effectiveness in resolving academic underachievement among gifted students. The findings of this study add to the literature on interventions and models aimed at addressing underachievement. Specifically, results from this study provide initial evidence that a focus on achievement motivation through positive self-perceptions, goal setting, and self-monitoring may increase achievement and behavioral engagement for some students. However, more research is needed to derive generalized conclusions on the effectiveness of the AME model. These initial results also provide evidence of the benefits of using an affective and developmental perspective when dealing with academic underachievement and issues of achievement motivation. However, findings from the existing literature support providing adequate levels of challenge, stimulating students' interests, and creating environmental supports that can be beneficial tools for resolving underachievement. The results from these studies, although promising, also showed that some students did not benefit from their participation. Therefore, as I move forward with this line of research, I will continue exploring the needs of underachieving students and how to serve them best. Building on my findings here and the existing body of literature on underachievement and achievement motivation, I look forward to expanding the AME model to a fully proactive, developmental model that incorporates both affective and academic supports through a schoolwide program of enrichment and support.

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APPENDIX A. THE AME CURRICULUM

Please note that this curriculum is a work in process. This is the version of the curriculum that was used for Study 2, this is not the final version.

THE ACHIEVEMENT ENHANCEMENT MODEL: AFFECTIVE CURRICULUM

Ophélie Desmet

Feedback?

If you have feedback or questions regarding the curriculum, please contact Ophélie Desmet via odesmet@purdue.edu

Introduction

Underachievement among students with gifts and talents (i.e., gifted and/or high ability students) can have serious consequences for the individual student and eventually society. According to Renzulli's *Three Ring Conception of Giftedness*, gifted behavior reflects an interaction among three traits above average ability, high levels of task commitment, and high levels of creativity. Continuing in this perspective, giftedness is not restrained to an innate ability; it is defined in terms of gifted behavior and manifests itself in actual outcomes or achievements. Thus ability, although necessary, is not sufficient to achieve, which brings me to the concept of underachievement among students with gifts and talents. Whereas giftedness is often presumed to manifest itself in actual outcomes, underachievement refers to the state of not being able to manifest one's giftedness into actual outcomes.

Underachievement is often defined as a significant discrepancy between an individual's ability and actual achievement (Reis & McCoach, 2000). Previous research has found that underachievement relates to individual factors such as lack of motivation (e.g., Siegle McCoach, & Roberts, 2017; Snyder & Linnenbrink-Garcia, 2013), family related factors such as a lack of support (e.g., Peterson, 2001; Rimm, 2008), and school related factors such as uninteresting or unchallenging curricula (e.g., Matthews & McBee, 2007; Obergriesser & Stoeger, 2015). Results from my own research (Desmet, Pereira, & Peterson, 2019) study indicated that students identified the following six aspects as contributing to the onset, development, and resolution of their own academic underachievement:

- Difficult transition into middle school,
- Lacking study skills and problems with procrastinating,
- Student-teacher relationships,
- Self-perceptions,
- Goal valuation,
- Development, maturity, and personal growth.

Having worked closely with underachieving students for years now and following my previous research study in which I explored how students' experiences with underachievement, it became clear that underachieving students are often stuck in the underachievement. Most of the students I had worked with indicated that they

had actively tried to resolve the underachievement, but did not know how and gave up when things did not go as they had anticipated. Thus, it became clear to me that there was a need for programming aimed at helping these students develop and express their full academic potential.

Therefore, I created an affective curriculum, the *Achievement Motivation Enhancement Model* (AME) to help increase achievement and achievement motivation in students. Specifically, the affective curriculum fits the themes identified in a multiple narrative study of underachieving students (Desmet et al., 2019) as well as a commonly referenced theory of why students underachieve, the *Achievement-Orientation Model* (Siegle et al., 2017). The AME includes exercises and small group discussions on topics such as enhancing achievement motivation, stimulating metacognitive and self-regulation skills, effective learning, and goal setting.

Facilitating small group discussions

Note this chapter was translated and adapted from my previous work (Desmet & Gevaert, 2019; Gevaert & Desmet, 2016).

How to facilitate small group discussions

We recommend groups of approximately six to eight kids.

It is important to create a safe and confidential environment for these small group discussion sessions. Therefore, we will set up some ground rules at the start of the first session:

- We will listen with an open mind,
- We will not judge people for what they share,
- We will treat each other with respect during these sessions,
- ...

Students do not have a lot of experience with the level of reflection we will be requiring of them during these exercises. Therefore, as a facilitator, you should encourage students to reflect on their experiences and use probing questions to facilitate this. One way you can encourage reflection is by asking open questions. These questions usually start with what, when, how, where, etc. and will invite students to share their experiences and thoughts. Students will also feel more comfortable to share in the group when you validate their input and feelings. Comments like "that is difficult" and "I am noticing that this is making you sad" will validate what the student is sharing, you are also modeling how to express emotions, and finally you are creating an opportunity for the student to share more details.

Everybody needs some time to adjust to the group dynamics, before they can open up and have deeper conversations. Monitor the group dynamics and monitor the progress of each individual in the group as well as the group as a whole. Facilitate the discussions in such a way that you create opportunities for each student to share their thoughts. When you notice dominant or quiet personalities you could consider techniques such as a talking stick or directing questions at specific students to help assure everyone gets an opportunity to talk. However, be mindful of not forcing students to share their thoughts when they are not comfortable. We want to

encourage people to share freely by creating a safe space to do so, but we also want to respect each other's boundaries. Each student can decide if and when they are comfortable sharing something. That being said an easy trick to get people talking is to go around in a circle and have everyone share their thoughts. Most of the time, students will naturally share their thoughts when it is their turn. When students are not ready, we can move on and come back to them later.

It is also good to be mindful of students that may cross their own boundaries. Sometimes, when students get nervous or when students are on a roll, they might share too much. For example, when a student says, "I have never told anyone this before" you may want to interfere and ask if the student is certain that they want to go ahead and share that information and/or remind them that they do not need to feel like they have to share that information if they are not 100% certain.

Finally, you should maintain a zero-tolerance policy for mean comments and responses. As a facilitator, it is important to immediately address those comments and responses and put up a clear boundary. Depending on the severity of the conflict, a quick comment from you might be enough; other times it may be necessary to reflect as a group on what happened or to address this one-on-one with the those involved.

Tips on autonomy-supportive facilitation

- Provide choices. Give students some options to work toward a specific goal. They enjoy some level of freedom.
- Share your reasons for putting up boundaries. This helps students understand why you chose to do something the way you are doing it.
- Ask students how they are doing. These students like to share their feelings and thoughts about the day too! Don't forget to check in with them on a regular basis (ideally at the beginning of each session).
- Give solution-focused feedback. Students find it easier to listen and incorporate your feedback when it is focused on the solution than when you point out the problems. Here are some things you can ask:
  - How would you handle that?
  - What can I do to make things easier for you? How can I help? (if no response, would it help if I did...?)
  - I understand you would like to solve this on your own. If you would like maybe I could offer some advice or be of help.

Tips on dealing with fear

- Help students take control of their fear. The goal is not to eliminate their fear. Fear has some benefits. If the fear is not paralyzing, it may help you focus and can even be motivating. However, when it becomes paralyzing those benefits are no longer there.
- Do not shy away from talking about fear. If students do not know how to express themselves, it can be helpful to ask questions to help you identify what their fear is or how they are feeling. For example:
  - Are you worried you are missing out on something at home?
  - Are you afraid of making a mistake?
  - Would it be easier for you to write it down and show it to me?
  - etc.
    NOTE: Be careful as you ask these questions. Teenagers can be prickly and they may not react well if they feel like you are not understanding how they feel. Observe the situation well and decide carefully what to ask.
- Share positive, but realistic expectations with students. Students can get scared when they do not understand what the expectations are. Making the expectations clear, can then calm them down.
- Respect and validate students' fears. Fear is not always rational. It is important to validate that their feelings are true, but be mindful that you do not confirm their fear. There is a difference between validating (I understand you feel scared) and confirming (you should be afraid). Here are some things you can ask/say:
  - I see you are tense, are you okay?
  - Let's do some deep breathing together.
  - I understand you think this will not work, let's take a short break and give it another try.

Tips on dealing with perfectionism

- Students with perfectionistic tendencies are rarely satisfied with their performance. Instead of telling them they did great, help them set realistic goals.
- Focus on the progress students are making and the process. These students tend to overly focus on the outcome or product, so it helps if you can remind them of the process and the progress they are making.
- Share clear objectives and goals with students. Students do not always set realistic goals for themselves. When you share yours, you are not only modeling good strategies for them, you are also helping them avoid setting unrealistic goals.
- Encourage positive self-perceptions. Perfectionism often goes hand in hand with a negative self-image. Keep this in mind when you interact with students and have them enjoy things they are good at and help students develop a positive inner voice. Perfectionism can translate into to negative self-talk. When you hear negative self-talk, point it out, and help students rephrase what they said to a constructive message.

- Teach students how to deal with setbacks. Help them acknowledge setbacks and give some room for the emotions that come with that. Once the emotions have been experienced, we can look for ways to learn from our setbacks. Provide comfort (I know it is frustrating when things do not work out), but do not downplay it or negate it (it is okay, you do not need to be upset over this). Here are some things you can ask/say to learn from setbacks:
    - Let's go over what happened here: where did you do well, where do we have some room for improvement, etc.
    - What did we learn today?
    - What will you do differently next time?

Tips on dealing with procrastination/regulation

- Students are too young to regulate their own behavior fully. They are still learning this skill and need your help. Remind them of tasks/assignments/activities/etc. encourage all adults interacting with these students to check and assist in the regulation process. For example, remind the students at the end of each session what their take-home assignment is and what they should bring next session. It can be helpful to remind parents of this as well and ask them to follow up with their child on the progress they are making on the take-home assignment.
- Provide boundaries. One suggestion of boundaries is to not allow phones during small group discussions. Students are not yet able to withhold themselves from the temptation of playing games, texting, snapchatting, etc. during sessions when they have their phones out. Let's face it, a lot of adults can't handle this distraction either. Here, it will again help to explain why you are setting up that boundary.
- Give students the benefit of the doubt. Believe that they are trying their best. It is frustrating for them as well when they do not succeed. Here are some things you can ask/say:
    - Tell me what you are going to do? (use this conclude a conversation so you can check if they understand what they are working on)
    - Let's evaluate, what worked well and what should we change for tomorrow/next week/the future?
    - When will you work on this and how? What can I do to help you with that?

Tips on dealing with insecurity

- Empower students. Encourage them to explore what they can do. Work on their self-perceptions by praising them for their talents and things they do well. Also, encourage them to dream big. These students might have a tendency to stick to what is familiar when they could be achieving a lot more.
- Show students how to achieve their goals (big dreams) by teaching them efficient strategies for working on those goals.
- Be a good role model. Students who are dealing with insecurities do not always like to be the center of attention. So, it helps them to observe you first and learn from what you are doing. Once they are comfortable you can invite them to join you. Also, model strategies and tricks by sharing stories of how you dealt with certain things.

- Encourage students to persist. Even when students know they are good at something, they might still give up quickly. They start doubting themselves when things are challenging. It is good to give some encouragement when you see this happening. Here are some things you can ask/say:
    - I can see this is a bit challenging. Let's take a breath and think about what we can do to give this a go.
    - I have found ... hard to deal with and this is what I do to get through...
    - Let's figure out together how we can make this work for you.

Session 1: Hello, my name is... and this is my talent toolbox

Background information

Several factors will determine how successful these small group discussions will be. One of these factors is the relationship you will build with the students. Therefore, it is very important to take time to get to know each of the students in your group. To start, we will do a basic introduction game. Note that I have a section with substitutions/changes you can make to this activity.

Take some time during this session to talk about why we are here. What we will be doing in these sessions and set up some rules. In the instructions section, you can find an example script, but feel free to make changes to that.

This exercise is also an opportunity for the student to reflect on who they are. Keep that in mind as you go through these questions.

We encourage you to use a strength-based approach with the students. A strength-based approach centers on (I'm sure you guessed it) student's strengths and their self-determination. To help you do this, we have an activity to explore the strengths and talents of each of the students in your group: My talent toolbox. This activity is something you can continuously refer back to as you move through the curriculum. Whenever students need a reminder of what they are capable of or what their talents are, you can review their toolbox. You can also continuously add to the toolbox as students identify new strengths and talents as some of them might need some time to come up with these.

Try to challenge students to truly reflect on their strengths. Some students will find it challenging to share positive self-perceptions. You can ask what others might say they are good at for example. You can share your observations as well, however, be cautious to not give your opinion.

Objectives

- Students introduce themselves.
- Students practice self-reflection.
- Students identify their own strengths and qualities.

Exercise 1: Welcome and Rules

Time allotted:

Say (this is an example script):

Welcome, everyone! I am happy to have you all here. My name is ... and I invited you all for a series of small group discussion sessions to work on developing our talents further. We will meet in these small groups 6 times to discuss different topics with each other and work on developing our talents further. We will be working on topics like how to stay motivated when things get hard and how we look at ourselves. In these sessions, we will be talking about good things like what our strengths are, but we may also talk about things that are a bit harder for us, for example, we will be sharing some challenges we have experienced. Because of that, I want to set up some rules about how we treat each other during these sessions. I want everyone to feel safe and comfortable to share their thoughts freely in the group, how can we make sure that happens?

Do:

Brainstorm with the students on some rules, try to have a maximum of 5 rules. Here are the suggested rules we want to get to, but it is a group decision:

- We will listen with an open mind; we will not judge people for what they share.
- We will respect each other's privacy; we will not share what is being said in this group with others.
- We will treat each other with respect during these sessions; we will not make fun of each other.
- ...
- ...

Keep in mind:

Did you notice how I have written the sample rules as actions first (we will do) and then what we won't do? It is easier for kids to know what they can do, instead of only including what they cannot do. The 'do-not-do' list can be omitted completely, but often this is how students will phrase rules. Help them turn rules around into action statements.

If you would like, you can write these rules down on a poster and hang them up during the sessions.

Exercise 2: Hello, My Name Is…

Time allotted:
- 10 minutes for the activity
- 5 minutes for the debrief

Materials
- Markers/pens/pencils
- Copy paper or drawing paper
- Optional: foil and glue, parchment paper or butcher paper, sidewalk chalk, etc.

Preparation
- If you would like, you can go ahead and make yours first and use it as an example during the exercise. That way you free up your time to guide the activity.
- Write the instructions on the board or on a poster before you start.

Substitutions
- Make a social media profile (use the same questions as described below)
- Draw a mirror, paste reflective foil in it, and write around the mirror. (use the same questions as described below)
- Draw the face
- Draw the body and pair questions with each body part:
    - Head = My name is ..., I am ... years old, my pronouns are…
    - Heart = I like ...
    - Left hand = I would like to grow in/get better at ...
    - Right hand = I am good at ...
    - Left foot = I want to achieve ... (my goal is)
    - Right foot = I don't like...

Instructions

Say:

Now that we have agreed on some ground rules, we can take some time to get to know each other a little better. We will start by creating our self-portraits. In a minute,

you can pair up with the person sitting to your right and grab some markers and a sheet of paper.

Do:

Step 1: Have your partner trace your hand on the paper.

Step 2: Interview each other and write down the answers to the following questions

- Thumb = I am good at ...
- Index = I want to achieve ... (my goal is)
- Middle = I don't like ...
- Ring = I like ...
- Pinkie = I would like to grow in/get better at ...
- Palm = My name is ..., I am ... years old, my pronouns are…

Step 3: Now have the partners introduce each other to the whole group.

Step 4: Let's debrief the activity

- *How did you like the activity? (What elements did you like/dislike?)*
  Alternatively, I like to start by doing a quick check in with students. Thumbs up, horizontally, or down. How did we like the activity OR how do we feel? This quick check in starts of the debrief and gives you some input from everyone.

- *Was it hard to come up with answers to the questions? Which ones were hard? Which ones were easy?*

- *...*

Keep in mind:

- If there are students with physical impairments that do not allow them to draw hands, choose one of the alternatives.
- If you are not paired with a student, go around to the different pairs, and check in on them. How is it going? Comment on some of the answers as you go around.
- Do not forget to introduce yourself. Share what students can expect from you and what your role is as a group facilitator along with the answers to the other questions.

Exercise 3: My Talent Toolbox

Time allotted:

- 15 minutes for the activity
- 10 minutes for the debrief

Suggestions:

- This exercise is something you can continuously refer back to as you move through the curriculum. Whenever students need a reminder of what they are capable of or what their talents are, you can review their toolbox. You can also continuously add to the toolbox as students identify new strengths and talents as some of them might need some time to come up with these.
- Try to challenge students to truly reflect on their strengths. Some students will find it challenging to share positive self-perceptions. You can ask what others might say they are good at for example. You can share your observations as well, however, be cautious to not give your opinion.

Materials

- Markers/pens/pencils
- Paper/notebook
- Optional: scissors and glue

Preparation

- If you choose the option of creating the boxes from paper, you should prepare those paper cutouts ahead of time.

Substitutions

- Use a different metaphor (e.g., backpack, treasure chest, etc.)
- Have students create a paper box and have them write their strengths on different pieces of paper and put it in the box. See Appendix A, if you want to use this option.
- If students know each other well, you can consider having each student write one or more talents in each other's boxes.
- Have students make trading cards of their strengths. You can then present students with various situations in which they can use their strengths.
- Students who do not want to write or students who have trouble with writing could type their strengths out on their personal device.

Instructions

Say:

Everyone has an inner toolbox full of talents, knowledge, and strengths. Your toolbox

can have a variety of things in it. For example, in mine I have perseverance. I am

good at persisting when things get hard and that is a tool I often use when I feel challenged. Another tool in my box is my writing skills, I am a good writer and that helps me when I have to write papers for my classes in school.

We are going to explore what tools are in your toolbox. Take some time to think about the following questions, write some thoughts down and we will discuss the strengths and talents in your toolbox.

Do:

Start by posing the general question: *what are the strengths and talents in your toolbox?* Students can write them in a box if they would like, or just list them on paper/type them on a personal device. Alternatively, you can choose to make the toolbox in Appendix A.

While the students work, go around and check in with each student.

Some example follow-up questions you could ask to encourage students are:

- *Tell me about a time you were very proud of yourself.*
- *Tell me about your best day ever. What was so special about that day? (Listen for any references to strengths, talents, things they appreciate that could be turned into a strength or talent)*
- *What would your parent/sibling/friend say when I would ask them about your strengths or talents? Do you agree?*
- *What do you enjoy doing at school or after school?*
- *...*

Debrief:

It looks like everyone has had a chance to come up with some tools in their toolbox. Let's discuss what we have identified as our strengths and talents, otherwise known as our tools!

- *Tell us about what is in your toolbox.*
- *How do you notice this is your talent?*
- *When and where do you use your talent?*
- *Was it hard to come up with these? Why or why not?*
- *How did we like the activity? Thumbs up, horizontal or down. (Have a few students share their thoughts on the activity).*

Exercise 4: Exit Ticket

Time allotted

- 5 minutes for the activity

Suggestions

At the end of each session, students will fill out an exit ticket worksheet. This is a moment of brief reflection on what they have learned and an opportunity for them to give feedback or pose questions they might not want to ask in front of the group.

Materials

- Worksheet
- Pen/pencil

Preparation: None

Substitutions: None

Instructions

Say:

We are nearing the end of our session. I want to thank you all for participating and I look forward to many more productive sessions! At the end of each session, I will ask you to fill out a worksheet with some questions to help you reflect on what you learned in today's session as well as an opportunity for you to give some feedback on the curriculum and these sessions in general.

Do:

Handout the worksheet and collect them as students walk out. Make sure students put their name on their exit ticket.

Session 1: Exit Ticket

First name:

Last name:

What are three things you learned in today's session?

What are some things you liked about today's session?

What are some things you would change about today's session?

Would you like to share anything else with the teacher? (e.g., suggestions, questions, thoughts, feedback)

Session 2: Turning Dreams into Goals

Background information

In this session, we will focus on intrinsic motivation, learning goals, and autonomy-supportive communication. These are big topics, so I will try to break them down for you in one page of background information.

Autonomy-supportive communication

In the introduction to this curriculum, I already briefly touched upon how to support autonomy because this is something you should incorporate in all interactions with students, not just in these sessions. Researchers have found that autonomy-supportive communication along with appropriate praise can benefit student's intrinsic motivation.

Autonomy-supportive communication involves the following (Froiland, 2011):
- Emphatic statements
- Providing student choice
- Valuing creative self-expression
- Providing just-in-time support/instruction
- Highlighting task-meaningfulness
- Praise focused on the learning process
- Using motivational analogies

Learning goals

One way of becoming intrinsically motivated is by using learning goals. Students who engage in learning with learning goals are focused on increasing their knowledge, skills, and understanding. Students are interested in becoming more competent (Grant & Dweck, 2003). Essentially, students are focused on the learning process itself and not on the product or performance. Learning goals are often compared to performance-approach or performance-avoidance goals (Froiland, 2011). Here are some examples to help distinguish between the different kinds of goals:

Learning goal	Performance-approach goal	Performance-avoidance goal
I would like to understand	I would like to have	I don't want to fail my class

how photosynthesis works	straight A's	

Intrinsic motivation

Ryan and Deci (2000) are two researchers, famous for their work on intrinsic motivation. They define intrinsic motivation to learn as engaging in learning because it is seen as enjoyable, interesting, and/or relevant to meeting needs or goals.

We can stimulate intrinsic motivation in students by teaching them to set intrinsic learning goals. Students can set these intrinsic learning goals when they understand how their current academic goals are related to their future life goals.
For example, if a student dreams of becoming a scientist, and she is lacking intrinsic motivation in language arts, it might help to point out how important writing skills are for scientific publications.

Objectives
- Students are able to discriminate performance goals from learning goals.
- Students formulate one or more realistic, intrinsic learning goals.
- Students break long term goals up into short term goals.
- Students break up their bigger goals into smaller, manageable steps.
- Students practice self-evaluation skills.
- Students develop a step-by-step plan on how to achieve their goals.

Exercise 1: Turning Dreams into Goals

Time allotted:
- 5 minutes for the opening round.
- 40 minutes for the activity
- 10 minutes for the debrief

Suggestions
- As you prepare this activity, take some time to look at the next session on self-monitoring as well. These two sessions are closely related in that we first need to set the goals and then need to make a plan to achieve those goals.

Materials
- Turning Dreams into Goals worksheet
- pens/pencils

- notebooks/paper
- additional materials if you are doing one of the alternatives.

Preparation

- Familiarize yourself with the difference between learning goals and performance goals. Throughout the activity, you will have to support students in formulating learning goals as much as possible.

Substitutions

- There are a variety of formats you can use to visualize the goal-setting process. For example, Post-It notes on a board, ladder, mountain, word cloud, timeline, map, ... I chose the metaphor of stairs, but you can change that if you would like.
- When the group dynamic is good or you are working with a pre-existing group, you could use peer feedback as a way for students to help each other set goals. However, it is important to closely monitor this process and make sure students are working on formulating intrinsic learning goals.
- For students who enjoy crafts, you could consider making a vision board by cutting up magazines. Keep in mind that this will take a significant amount of time.
- For groups who respond better to a more active approach, you can have students paste Post-it notes on actual stairs.
- For a more game-like approach, you can turn this activity into a wheel of fortune game. Write different categories (personal, education, physical, sports, hobbies, school, family, etc.) on a wheel. Each student spins the wheel and comes up with three goals for the category the wheel lands on.

Opening round:

Say:

Hello everyone, and welcome back! How are you doing? Let's go around and you can all share something you learned in class today.

Do:

Give everyone an opportunity to share something.

Keep in mind:

This can be a quick opening round, to settle in and give students some time to bring their attention to the conversation. It's a nice way to start every session and give students an opportunity to share some of their thoughts regarding their progress and topics relevant to the curriculum.

Instructions

<u>Say:</u>

In today's session, we are going to be talking about goals. So, let's start off by taking a moment to think about what you would accomplish and why, if you could accomplish anything in the World.

<u>Do:</u>

Give students a minute to think and then do go around the room asking students to share. Here are some sample questions/statements you can use in the discussion:

- *Tell me more about that.*
- *Why did you choose that?*
- *How realistic do you think that is? (intended positively)*
- *What have you done so far to work towards that goal?*
- *What is holding you back from achieving that goal?*
- *What has led you to want to accomplish this?*
- *What might hinder you in achieving that?*
- *What about you might help you in achieving that?*
- *Would this be something you would consider doing if you did not get credit for it?*
- *...*

<u>Say:</u>

Good now that we have explored what you dream of achieving, we can take a step back and bring it to reality. Let's formulate our true long-term goal based on what we just discussed. You can write it down on your worksheet.

<u>Do:</u>

Have students fill out the Turning Dreams into Goals worksheet.

Step 1: Start with writing down their long-term goals and evaluate the goals using the following *questions:*

- Is it specific?
- Is it achievable?
- Is it time-bound?

Step 2: Ask them to think about what role school (high school, college, beyond) plays in achieving that goal. For example, what are some skills/knowledge the students could learn in school to help them achieve that goal?

Step 3: Then consider two to three educational goals that are related to your long-term goal. Once again keep in mind that goals should be formulated as specific, achievable, and time-bound.

Step 4: The next step is to consider two to three personal goals that will help the student achieve their long-term goal.

Step 5: Once they have formulated the long-term goals and their educational and personal goals, it is time to think of an action plan. What are the steps and short-term goals we need to achieve? Start with the goals you have just formulated and work back from that to come up with some short-term goals and steps that you have to achieve on your way to reaching that long-term goal.

Keep in mind:

Not everyone will want/need to go to college. Skills and knowledge can be acquired in multiple ways. However, most (if not all) of these students will at minimum obtain a high school degree or equivalent. Therefore, the purpose is for students to at least make the connection between what they are learning in high school and their future goal. Do not focus too much on college-related goals. A college degree is one step toward achieving a bigger goal, students should think about what comes after that.

As you do work with students on this worksheet, it is important that you help students formulate learning goals. For example, if a student says they need a 3.0 GPA to get into college, that is a performance goal. It is not wrong to have performance goals like these; however, you want to make sure they also have a learning goal to go with that. That way we can help them increase their intrinsic motivation. For example, you ask students the following to help them formulate a learning goal to go with that:

- *What is holding you back? (listen for skills that can be improved, knowledge that can be attained, etc.)*
- *What skills could you acquire to achieve that goal?*
- *What classes in your high school could help you prepare to achieve that goal? Or what opportunities/courses/people are available?)*
- *What is important to you?*
- *What do you value?*
- *What drives you?* (listen for intrinsically motivated factors and make the connection between those and the goals (long term and short term) explicit for the student)

If you have the time (or if someone is done early):

Let's take our toolbox from the last session and see what is already in our toolbox that we can use to achieve our goals.

Worksheets are on the next pages. Note there is a debrief and exit ticket as well.

Turning Dreams into Goals Worksheet

If you could accomplish anything in the world, what would you do and why?

_____

_____

_____

_____

_____

_____

_____

_____

What role does school play in that goal?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Create two to three educational goals that relate to your life goal. Educational goal or academic goals are goals specifically related to your work in school and your academic skills and knowledge.

1) _____

_____

_____

2) _____

_____

_____

3) _____

_____

_____

Create two to three personal goals that relate to your life goal. Personal goals are goals related to your personal growth. These can include inter- and intrapersonal skills.

1) _____

_____

_____

2) _____

_____

_____

3) _____

   _____

   _____

Steps to reach educational goal #1:

1)_____

2)_____

3)_____

4)_____

5)_____

Steps to reach educational goal #2:

1)_____

2)_____

3)_____

4)_____

5)_____

Steps to reach educational goal #3:

1)_____

2)_____

3)_____

4)_____

5)_____

Steps to reach personal goal #1:

1)_____

2)_____

3)_____

4)_____

5)_____

Steps to reach personal goal #2:

1)_____

2)_____

3)_____

4)_____

5)_____

Steps to reach personal goal #3:

1)_____

2)_____

3)_____

4)_____

5)_____

Step 1: Write (one of) your long-term goal(s) on top of the stairs.

Step 2: Work back from your long-term goal, to come up with what steps/tasks/ short term goals you need to accomplish to achieve that long-term goal.

Step 3: create an order in which to accomplish those short-term goals to help you achieve your long-term goals step by step.

Step 4: specify when you are going to do what.
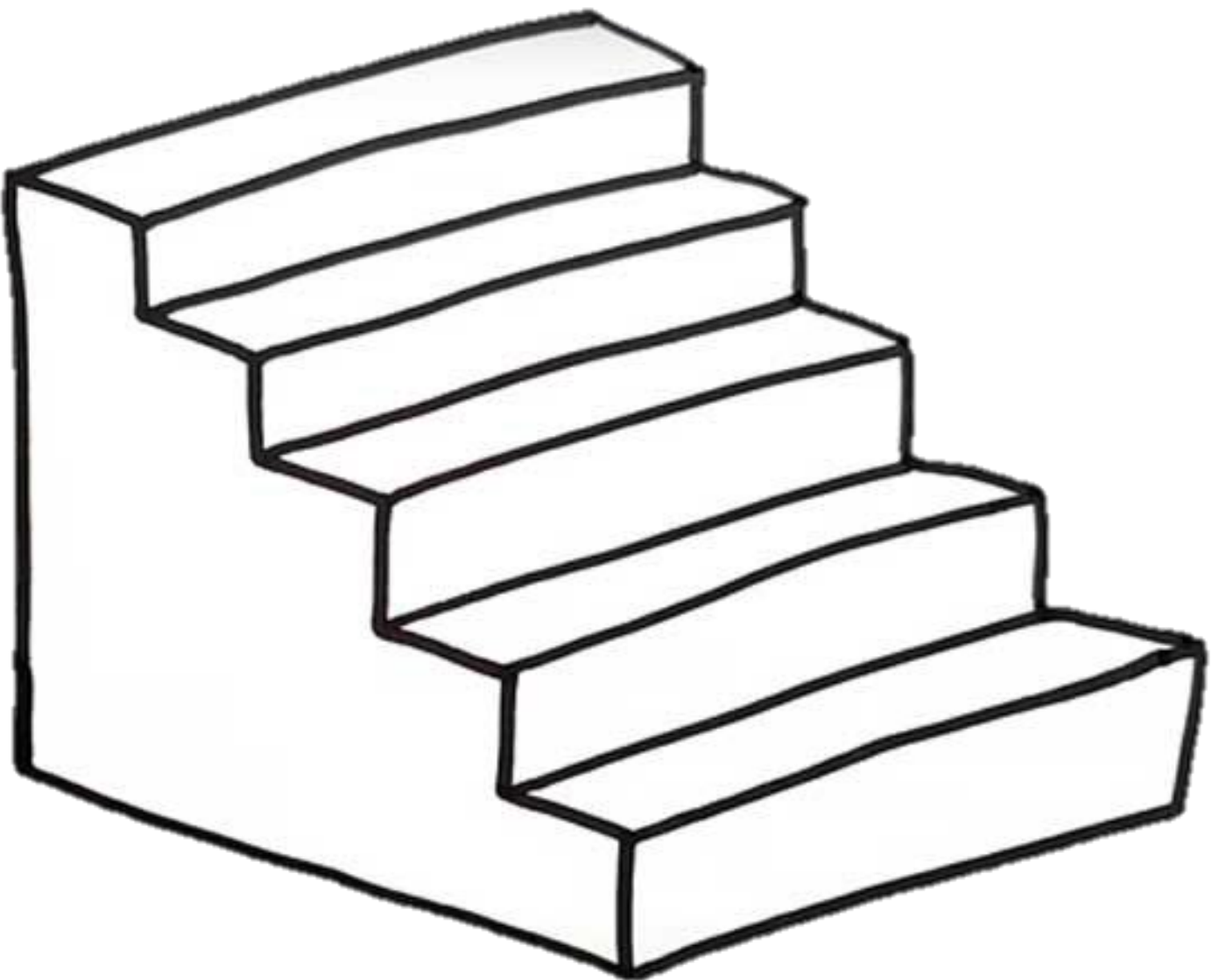
Debrief

Some questions you can ask to debrief the activity:

- *How are we feeling about what we've done so far?*
- *What did you find easy/difficult and why?*
- *…*

Exercise 2: Exit Ticket

Time allotted

- 5 minutes for the activity

Suggestions

At the end of each session, students will fill out an exit ticket worksheet. This is a moment of brief reflection on what they have learned and an opportunity for them to give feedback or pose questions they might not want to ask in front of the group.

Materials

- Worksheet
- Pen/pencil

Preparation: None

Substitutions: None

Instructions

Say:

We are nearing the end of our session. I want to thank you all for participating and I look forward to many more productive sessions! At the end of each session I will ask you to fill out a worksheet with some questions to help you reflect on what you learned in today's session as well as an opportunity for you to give some feedback on the curriculum and these sessions in general.

Do:

Handout the worksheet and collect them as students walk out. Make sure students put their name on their exit ticket.

Session 2: Exit Ticket

First name:

Last name:

What are three things you learned in today's session?

What are some things you liked about today's session?

What are some things you would change about today's session?

Would you like to share anything else with the teacher? (e.g., suggestions, questions, thoughts, feedback)

Session 3: Now I see me

Background information

Research has shown that self-recording/self-monitoring can reduce unwanted behavior. When we prompt students to record what they do or do not do, it tends to affect their behavior. For example, when you start tracking your food intake, chances are you will start eating less or healthier because you are monitoring it actively and recording what you eat. The same can be done for other behaviors, such as submitting homework on time, studying, and other behaviors related to increasing academic achievement.

In this session, we will be teaching students how to self-record, self-monitor, and self-evaluate certain behaviors related to the goals they set out in the previous session. As we do this, we will follow a four-step plan that I have created based on guidelines by Martella, Leonard, Marchand-Martella, and Agran (1993) and Chafouleas, Riley-Tillman, and Sugai (2007). The first step is pre-teaching; here we will provide some background information on why self-recording/self-monitoring/self-evaluation are useful techniques and important to learn. Next, we will define wanted and unwanted behaviors in relation to the goal we are trying to achieve. Then we will decide on how and when to monitor the behavior. Finally, there is the optional step of deciding upon a reward. By the end of the session, each student should have their own set of examples of wanted and unwanted behaviors and a personalized self-recording/self-monitoring/self-evaluation form.

Objectives
- Students are able to discriminate between wanted and unwanted behaviors in relation to achieving their goals.
- Students understand the relevance of self-recording, self-monitoring, and self-evaluation.
- Students practice strategies to record, monitor, and evaluate their own behavior and progress.

Exercise 1: Self-Monitoring & Self-Evaluation

Time allotted:

- 10 minutes for the check in
- 35 minutes for the activity
- 10 minutes for debriefing

Suggestions

- Self-recording uses external prompts (e.g., when you notice an unwanted behavior, you can prompt the student to record it) to aid students in their reflection process. Self-monitoring is essentially the same process as self-recording, but without the external prompts. This means that self-monitoring is more difficult to learn. As we teach students these processes, we will use external prompts as needed, but the goal is really for them to practice self-monitoring (i.e., no external prompts).
- In this session, it is essential to do encourage students to be as specific as possible.
- Add elements of evaluation into the monitoring where you can. I have included 4 examples of different forms that can be used and adapted. Feel free to create combinations where possible or where fitted.
- When appropriate you can also discuss a system where you follow up on this self-monitoring with the students outside of this small group session. For example, if you are a teacher, you can follow up and encourage self-monitoring in your classroom. This will work especially well when the behavior to be self-monitored is related to school (e.g., submitted homework on time, paying attention in class, studying regularly)
- This is a skill that will need practice, and it can be helpful to involve parents and have them follow up with their child as well. Especially when the behavior to be monitored takes place at home as well (homework, studying, etc.)

Materials

- pens/pencils
- paper/notebooks
- Copies of the self-monitoring and self-evaluation forms, see Appendix
- Copies of the apps that can help your self-monitoring process, see Appendix

Preparation

- Familiarize yourself with students' goals and prepare example wanted and unwanted behaviors in relation to those goals. I have provided an example, but tailor it to students' specific goals.

Substitutions

- You can offer students choices with regards to the behaviors they work on and how their personalized forms look.

Opening round

Hello everyone! How are we feeling today? Let's do a quick check-in round. We will go around and everyone can share one thing they learned this week, one fun experience they had, and one challenge they faced.

Instructions

<u>Say:</u>

Today's session will focus on self-monitoring and self-evaluation. Has anyone worked on this before?

Preteaching

Self-monitoring and self-evaluation are effective tools to change our behaviors and reach our goals. These tools can take many forms so, at the end of this session, you will walk away with a personalized form that is tailored to your goals and needs.

Essentially self-monitoring helps you achieve your goals because it makes you more aware of your behavior. Imagine that your goal is to eat healthier. Now if you use self-monitoring to achieve that goal, what could you monitor?

You could monitor what you are eating. There is an interesting thing that happens when you start monitoring what you eat, even before you actually make the lifestyle changes involved in eating healthier, you will notice that just by having to write down what you eat you will start making healthier choices. Similarly, what would happen if I asked you to record if you were paying attention in class every five minutes?

It would draw your attention back to needing to pay attention in class and it would likely increase the time you spend paying attention. So, in that sense, it would have helped you achieve your goal of paying more attention in class.

Defining the wanted/unwanted behavior

<u>Do:</u>

Now that we know how self-monitoring works. Let's try to apply it to our own goals. Have students take a moment to recall the goals they set for themselves in last week's session. With that goal in mind, have the students start brainstorming

behaviors they could monitor with the purpose of increasing them/ to help you achieve your goal.

<u>Keep in mind:</u>
Students could also focus on behaviors they would like to decrease, but it helps to stick to actions to increase because it gives them something to do.

Target behaviors to self-monitor in order to increase academic achievement could include:

- Paying attention in class
- Completing homework/assignments (can be made very specific: completing math homework)
- Improving positive self-talk
- Complying with teachers' requests
- Creating concept maps during my study hall
- …

Please note that you should formulate these as specific as possible. For example, if someone says stay on-task, what does that mean? What would that look like?

Method and timing of monitoring

<u>Say:</u>

Now that we know what behavior we want to monitor, it is time to think about the method of monitoring. I would like to encourage you to use some kind of written record of your self-recording because it will help you look at your improvement over time.

There are three formats that you can choose from rating scales, checklists, and frequency counts (Chafouleas, Riley-Tillman, & Sugai, 2007).
Rating scales essentially have you rate how well you did a certain behavior. Checklists, just have you check off if you did it or not, and frequency counts can be used when you want to keep track of how often you do something over a certain period of time. [Show students the three examples.]

Take a moment to think which form would work best for you and why.

<u>Do:</u>

Step 1: Have students explain their thought process with the group and provide input where necessary. Be mindful to provide autonomy-supportive feedback.

Step 2: Now that we know what we want to monitor and how we will monitor, we need to decide on when to monitor. Ask students to think of when to monitor their behavior.
Depending on the behavior students can monitor at the start/end of the school day, at set intervals, before, during, or after assignments, etc.

Step 3: Let's think about how we will remember to fill out our self-monitoring sheets. Do we need an external cue? Will we be able to give ourselves a cue? What would work best for you?

Step 4: In the final step, you can show students the list of apps that could help them monitor their own behavior. Go over the different apps. Do they have an app in mind that would work well for their goal? Give students some time to check out the apps.

Step 5: Give students the assignment to self-monitor their chosen behaviors for the next week and bring their documentation with them to the next session.

Rewards (optional)
Rewards for good behavior can help increase your motivation to stick to the plan. Let's think of a reward that we could give ourselves that is realistic and what we have to achieve in order to receive that award. [It is important to set realistic awards with students and to emphasize that the reward does not need to be materialistic.] *For example, if I manage to submit my homework each day of the week, I can have a friend over to watch a movie on Friday night. If not, I have to use my Friday night to complete the homework assignments that I missed.*

Debrief
Some questions you can ask to debrief the activity:
- *How are we feeling about what we've done so far?*
- *What did you find easy/difficult and why?*
- *What can I do to help you succeed in applying your self-monitoring strategies?*

Exercise 2: Exit Ticket

Time allotted

- 5 minutes for the activity

Materials

- Worksheet
- Pen/pencil

Instructions

Say:

We are nearing the end of our session. Thank you all for another great session. It is time to fill out our end of session reflections

Do:

Handout the worksheet and collect them as students walk out. Make sure students put their name on their exit ticket.

Session 3: Exit Ticket

First name:

Last name:

What are three things you learned in today's session?

What are some things you liked about today's session?

What are some things you would change about today's session?

Would you like to share anything else with the teacher? (e.g., suggestions, questions, thoughts, feedback)

Session 4: I Thought I could and I Did!

Background information

In this session, we are focusing on students' self-perceptions and their beliefs about intelligence and giftedness. Researchers have shown that incremental beliefs about intelligence (growth mindset) are positively correlated with achievement (Blackwell, Trzesniewski, & Dweck, 2007). Therefore, as you are working with students on their academic achievement, it is important to gauge their beliefs about intelligence and stimulate incremental beliefs or a growth mindset. Like many of the topics in this curriculum this should not just be addressed in this session alone. There are some things you should do throughout your interactions with students to help foster positive self-perceptions and incremental beliefs of intelligence. For example, you may have noticed that some of these sessions start with an opening round in which students share what they learned that day or what they found challenging that day. That is one of the ways we can encourage students to focus on the learning process itself as a goal and not just on the performance of the outcome.

Another important way you can encourage positive self-perceptions is by praising students verbally. Here are some things to keep in mind as you praise students to stimulate their growth and the learning process:

- Give specific compliments whenever possible (e.g., "Great! I can see that making a concept map really helped. It seems like that is something you could consider using again next time.")
- Don't praise just effort. Students who put in a lot effort, but are using ineffective strategies should not receive praise for that, instead, you can encourage them to consider alternative strategies (e.g., It's okay to not know something right way. Let's explore what things we can try to figure out the answer/Have you considered trying it a different way?). When a student put in effort and succeeded, you can praise that (e.g., I like that you kept trying new strategies until you found one that worked!)
- Praise the development of talent or skill. Effort is important, but students also need to believe they have the skills to succeed in the task.

There is a short video you can watch if you are interested in the effects of praise and achievement/beliefs of intelligence: https://www.mindsetkit.org/topics/praise-process-not-person/never-say-youre-smart

Objectives

- Students understand that challenging work is a way to grow
- Students reflect on their own struggles and try to think of them as opportunities to learn and grow.

Exercise 1: Growth Mindset

Time allotted:

- 15-20 minutes for the opening round
- 30-45 minutes for the activity
- 5 minutes for the exit ticket

Suggestions

- Reflect on some struggles you have dealt with and prepare to share how you overcame them or responded to them. Only share what you are comfortable with.
- If you know students look up to someone in particular or have talent/interest in a particular area, it can be beneficial to look up if that person has publicly spoken about their journey and the struggles they have faced on the path to success.

Materials

You'll need the following videos:

- John Legend: https://www.youtube.com/watch?v=LUtcigWSBsw
- Why you need to fail to succeed: https://www.youtube.com/watch?v=AWwDzHFSyLs
- Growing your mind: https://www.youtube.com/watch?v=WtKJrB5rOKs

Preparation

- Familiarize yourself with the videos before showing them in the session.

Substitutions

- Depending on the time available you don't have to watch all the videos. If you have other videos in mind that you would like to use, feel free to talk Ophélie.
- As an alternative for the John Legend video, you can use stories from other accomplished people who have shared their struggles: Albert Einstein, Michael Jordan, Marie Curie, J.K. Rowling, Martin Luther King, Neil Armstrong, Jane Goodall, and others.

Opening round

Hello everyone, and welcome back! How is everyone doing? Let's look at our self-monitoring progress.

Example discussion questions:

- How did your self-monitoring go?
- What made it easy or challenging?
- Was it useful? Why or why not?
- What did you learn about yourself doing it?
- What would you like to change or improve going forward?
- …

Instructions

<u>Say:</u>

Today we will start our discussion by watching a video.

<u>Do:</u>

Play the first video: John Legend. Followed by a guided discussion, using the following questions as a starting point:

- *What did we just watch? What is your main take away from what we just watched?*
- *What was John Legend's response to struggling to get a record deal?*
- *What is your passion?*
- *What is something you have struggled with?*
- *What do you tell yourself when you feel like giving up? What keeps you going?*
- *What would you have recommended to John?*

Play video 2: Why you need to fail to succeed. Again, followed by a guided discussion, using the following questions as a starting point:

- *What did we just watch? What is your main take away from what we just watched?*
- *What was Derek's response to struggling?*
- *What would you have recommended to Derek?*

Play video 3: Growing your mind, followed by a guided discussion, using the following questions as a starting point:

- *What are some thoughts? Do we agree with what was said? Why or why not?*
- *What are some takeaways?*
  - *Intelligence can be developed*
  - *The brain is malleable*
  - *Doing challenging work is the best way to make the brain stronger and smarter*

- *Based on what we just watched, what would you say to John and to Derek?*
- *Based on what we just watched, what advice would you give your future self when you face a challenge? (Encourage students to share tips with each other and reflect on each other's suggestions).*

Final Discussion:
- *Keeping in mind the goals we set in one of our last sessions, what are some challenges you think you might face?*
- *Keeping in mind what we discussed today, what could help you persevere when those challenges arise or in difficult times?*
- *Who could help you? What could you do? What are some resources available?*

Give students some to reflect on these questions on paper before you start the discussion.

Debrief:

Say:

As we wrap up today's session, take some time to revisit your reflections from previous sessions. Think about what you have learned so far and as we move forward you can consider how the things you have learned can benefit you as you work towards your goals. Does anyone want to share?

Exercise 2: Exit Ticket

Time allotted
- 5 minutes for the activity

Instructions

Say:

We are nearing the end of our session. Thank you all for another great session. It is time to fill out our end of session reflections

Do:

Handout the worksheet and collect them as students walk out. Make sure students put their name on their exit ticket.

At the end of the session, instruct the students to bring tests, assignments, or paper for which they would like to improve their grade. We will work with these materials next time.

Session 4: Exit Ticket

First name:

Last name:

What are three things you learned in today's session?

What are some things you liked about today's session?

What are some things you would change about today's session?

Would you like to share anything else with the teacher? (e.g., suggestions, questions, thoughts, feedback)

Session 5: My Learning Process, My Rules

Background information

Students learn when they are in the zone of proximal development. That means that we should provide students with adequate levels of challenge if we want them to learn. Vygotsky (1984) defined the zone of proximal development as a zone in which we provide students with an optimal level of challenge. This zone includes tasks which students cannot yet perform successfully on their own, but with a bit of help from another person or group they can perform successfully.

Unfortunately, a lot of gifted/high-ability students do not experience many challenges when they engage in the regular school curriculum. Their daily activities and content lie in their "I-already-know-this/I-can-already-do-this-zone" otherwise known as "the comfort zone." The zone of proximal development, or as we will call it "the learning zone," is where the "I-don't-know-this-yet/I-cannot-do-this-yet" activities and content lie. Because they spend so much time in their comfort zone, it might be scary to leave that zone to move on to the learning zone. For some students, the experience of a challenge may be so discomforting that they start doubting their own intelligence. Students who are not used to putting in effort, might not like it at first. They may even feel disappointed in themselves, they may be sad or ashamed.

In this session, we will work on how to be successful in our learning zone by applying effective learning strategies such as self-directed learning practices.

Self-directed learning

Learning and studying independently can be challenging, even for students who are academically gifted. Self-directed learning describes a process in which people assess the learning task at hand or formulate learning goals and identify appropriate ways to succeed at the task at hand or to complete the learning goals.

The self-directed learning process starts with assessing the task, evaluating your strengths and weaknesses as it relates to that task, creating a plan of action, applying the plan and monitoring progress, and finally reflecting on the result.

This cycle combines a series of topics we have previously discussed, the talent toolbox addressed strengths, in session 3 we worked on self-monitoring, and we end each session taking a moment to reflect. Refer back to these topics and skills as needed throughout today's session.

Objectives

- Students practice self-assessment.
- Students gain insight into what is their comfort zone and what is their learning zone.
- Students practice metacognitive skills.
- Students practice self-directed learning.

Exercise 1: Leaving my comfort zone

Time allotted:

- 5 minutes for the opening ride
- 20 minutes for the activity
- 5 minutes for the debrief

Suggestions

- If you want to show a video to introduce the topic, you can use one of these:
    - The power of yet song (Sesame Street): https://www.youtube.com/watch?v=XLeUvZvuvAs
    - Story on discovering the power of yet: https://www.youtube.com/watch?time_continue=14&v=nWb18yMGzpg

Materials

- Pens/pencils
- Paper/notebook
- Blackboard/whiteboard/posterboard/easel pad

Preparation

- Familiarize yourself with the differences between the different zones.
- *Instructions that should be written on the board (or other display):*
    - Comfort zone: what can I already do well and usually don't fail
    - Learning zone: what can I not yet do, things I could do with some effort or some help

    Panic zone: what tasks make me panic?

Substitutions

- None.

Opening round

<u>Say:</u>

Welcome back everyone. To start our session, let's do a quick round in which we all share how our day was. Tell us one thing that happened today that you would like to share with the group and one thing you learned today.

<u>Do:</u>

A quick five-minute opening round in which the students get an opportunity to share how their day was. Go around the circle and give each student a chance to share. Feel free to share something yourself at the end and then move on to the first exercise.

Instructions

<u>Say:</u>*In today's session, we will be talking about comfort zones and learning zones and other things related to how we learn.*

- *Who knows what a comfort zone is?*

When we talk about a comfort zone in the context of learning, we are talking about your "I-already-know-this-/I-can-already-do-this-zone." Everything you already know and all the skills you have already mastered lie in that zone. When we are in that zone, we are not learning anything new.

<u>Do:</u>

Draw the comfort zone circle on the board or poster.

<u>Say:</u>

Learning happens in our learning zone.

<u>Do:</u>

Draw the learning zone circle on the board or poster.

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<u>Say:</u>

While learning we are working on something we cannot yet do by ourselves. Any activity that requires skills or knowledge that you have not yet mastered, lies in our learning zone. You need some explanation or some guidance from someone. Maybe you need to practice a bit. That is learning. It involves some challenges. Sometimes we learn things really quickly and sometimes it takes us a while. How do you feel when you are being challenged in your classes?

We also have a panic zone.

- *What could our panic zone be?*

In our panic zone, we keep all those things that we would like to do, but we do not feel confident that we will succeed at them, even if we receive some help. They make us panic.

<u>Do:</u>

Draw the panic zone circle on the board or poster.

<u>Say:</u>

Let's now take some time to think about what our comfort, learning, and panic zones look like. Draw these three circles in your notebook/piece of paper and write in each circle what you think is in there. Try to come up with at least three things per circle.

<u>Do:</u>

If you did not already, add the explanation to each zone on the board as a reminder for students.

- Comfort zone: what can I already do well and usually don't fail
- Learning zone: what can I not yet do, things I could do with some effort or some help
- Panic zone: what tasks make me panic?

<u> Keep in mind:</u>

This what the drawing should look like
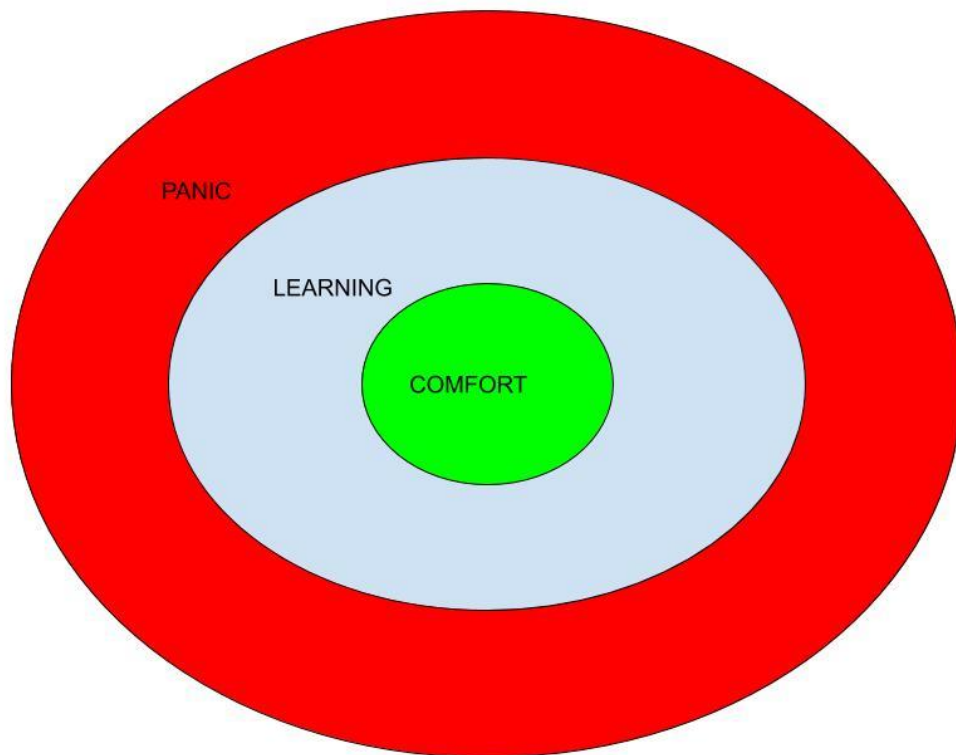
Debrief

<u>Say:</u>

Okay, let's wrap this up with a brief reflection.

- *How useful did we find this activity?* (thumbs up, horizontal, down)
- *What is our main take away?*
- *Any lingering thoughts or questions or suggestions?*

<u>Do:</u>

A quick check in with students.

Exercise 2: Self-Directed Learning

Time allotted:

- 20 minutes for the activity
- 5 minutes for the debrief

Suggestions

- Depending on how much time you have available, you can choose to only do part 1 of this activity.

Materials
- Pens/pencils/markers
- Paper/notebook
- Print out of the cycle of self-directed learning

Preparation
- Remind students in advance to bring a test/assignment/paper for which they would have liked to get a better grade.

Substitutions

None.

Instructions

Step 1

Say:

Learning is a process, not a product. However, because this process takes place in our minds, we only know if learning occurred when we see a product or a performance that shows our learning. Learning also takes time. You are changing your knowledge, beliefs, attitudes and behaviors and that does not always happen overnight. In order for the learning to have a lasting impact, you need to put in some time and effort.

Do:

Brainstorm about our learning process:
- *How do you learn best?*
- *How do you prepare to write a paper? What is your process to write a school paper?*
- *How do you study for a test?*
- *What are some strategies you have used to learn before?*

Write these on a poster or the board so that the students can see all the different strategies. If students are hesitant, you can give an example of something that you have done, however, refrain from giving too many examples.

Step2

Say:

Okay now that we have a variety of strategies, let's look at what the advantages and disadvantages are of these strategies.

Do:

Go over each strategy and write down its advantages and disadvantages. Don't give your opinion on students' suggestions yet, at this point we are trying to stimulate students' metacognition by having them reflect on their own learning.

Step 3

Say:

Good! Now let's stop and think about what we just did. We just reflected and evaluated our own learning process.

- *Is that something you have done before?*

It is really good and important to constantly evaluate yourself and your learning. Remember how we have learned about self-monitoring? Well, this is another part of that. As you try new things, it is good to take some time to evaluate if it is working and why or why not. This will help you stay on track with your progress. When you notice something is not working for you, find out what might not be working well for the goal/task at hand, and make adjustments.

What we just did is an important step in becoming a self-directed learner. In fact, some researchers have come up with a cycle of self-directed learning and you will notice we have been practicing quite a bit of the skills involved in that.

Do:

Show them the cycle.

Say:

The first step in self-directed learning is to assess the task. Ask yourself "what are they asking me?" Next, you will need to evaluate your strengths and weaknesses in relation to what the task involves.

- *Who remembers what activity we did to reflect on our strengths and weaknesses? Our Toolbox! Next, we will make a plan for how to complete the task, keeping in mind what we have in our toolbox.*

Once we have our plan, it is time to apply it and monitor our progress. What should we do to monitor our progress? We should reflect on our strategies and adjust where needed.
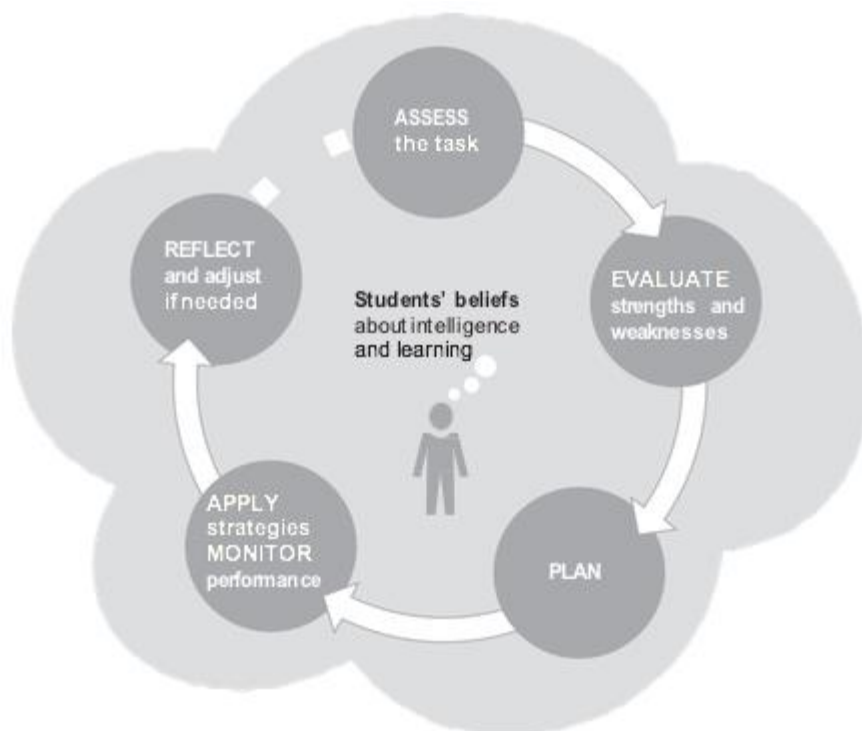
Cycle of Self-Directed Learning (Abrose, Bridges, DiPierto, Lovett, & Norman, 2010)

Do:

Let's take students' tests, assignments, or papers for which they wanted to improve their grade and see if we can use this cycle of self-directed learning to figure out what we should change.

Example questions to guide this process include:
- *What was the objective of the task/test?*

- *What skills or knowledge did you have to use during the activity? Had you used these skills/this knowledge before?*
- *What mistakes did you make? How can we learn from these mistakes?*
- *If you had to start all over, what could you differently and why?*
- *What advice would you give a student who is starting this task?*

Debrief

Say:

Okay, let's wrap this up with a brief reflection.

- *How useful did we find this activity?* (thumbs up, sideways, down)
- *What is our main take away?*
- *What will you apply from what we learned today in the next week or so?*
- *Any lingering thoughts or questions or suggestions?*

Do:

A quick check in with students.

Exercise 3: Exit Ticket

Time allotted

- 5 minutes for the activity

Suggestions

At the end of each session, students will fill out an exit ticket worksheet. This is a moment of brief reflection on what they have learned and an opportunity for them to give feedback or pose questions they might not want to ask in front of the group.

Materials

- Worksheet
- Pen/pencil

Say:

We are nearing the end of our session. Thank you all for another great session. It is time to fill out our end of session reflections

Do:

Handout the worksheet and collect them as students walk out. Make sure students put their name on their exit ticket.

Session 5: Exit Ticket

First name:

Last name:

What are three things you learned in today's session?

What are some things you liked about today's session?

What are some things you would change about today's session?

Would you like to share anything else with the teacher? (e.g., suggestions, questions, thoughts, feedback)

Session 6: When the Going Gets Tough...the Tough Keep Going

Background information

Researchers have found that resiliency is one of the most important factors affecting academic performance. It is therefore important for students to learn how to deal with setbacks. In earlier sessions, we have discussed how some students with gifts and talents have trouble dealing with challenge because they have rarely had to deal with it. When these students experience setbacks or failure for the first time, it can thus be challenging to respond appropriately. Students may have an emotional reaction such as stress or fear. They might also use negative self-talk as a way of dealing with this frustration. Moreover, if students have a fixed mindset, they may feel like they are no longer smart or gifted or intelligent.

Resiliency is the capacity to rebuild from adversity. This is not a genetic trait! Students can learn how to deal with setbacks, challenges, difficult situations appropriately. Resilience is being practiced throughout this curriculum, not just in this session. We are teaching students to view obstacles/challenges/effort/etc. as a critical part of learning and success to help them develop resilience.

Throughout the curriculum you can do the following things to help support the development of resilience in the students:

- Remind students that it's okay to ask for help and support. For example, brainstorm with them about when, where, and who they can go to when they need help or support.
- Remind students that it can be useful to experience challenges in life. It helps us grow as people and we can learn from them for future challenges.
- Encourage your students to help and support each other. Have them brainstorm how they might help a friend in a challenging situation.

Some things to keep in mind as you foster resilience:

- As you work with the students it is important to always gauge their emotional state. When students are upset, they may not be thinking rationally. It is important for you to empathize and acknowledge their emotions. Do not minimize their experience, even if it seems like something small to you, the student might see this as a disaster. What you can do, is problem solve. Help

students explore solutions or help them prepare for future events that will be similar and how they can learn from this challenge to do better next time.

- Allow students to make mistakes do not interfere too early. When they do make the mistake, you can praise their effort and point out what went well in the process, even though the outcome might not have been what was intended.
- Have students help and support each other.
- Help students see how their skills and strengths transfer across situations.
- Encourage constant progress. Refer back to the session on self-monitoring for tips on how to do this.

Objectives

- Students reflect on their coping strategies.
- Students learn how to constructively deal with setbacks.

Exercise 1: Bounce Back

Time allotted

- 10 minutes for opening round
- 20 minutes for the activity

Suggestions

- What you are applying here should be used throughout your interactions with the students.

Materials

- Poster sheet
- Paper/notebook
- Pens/pencils

Preparation

- None

Substitutions

None.

Opening round

Do an opening round with the following questions:

- How was everyone's week?
- Did anyone use the self-directed learning cycle as they were studying or working on an assignment? How did it go?
- Any thoughts on what we learned so far or any questions?

Instructions

Do:

Step 1: Have students write about a time in your life when you had to deal with a difficult or challenging situation.

Write about what helped you as you overcame this challenging or difficult situation.

Write about what might have hindered you in overcoming this situation.

Finally, write what you learned from that situation and it has helped you or will help you in the future.

After 10 minutes, check in with students and see if they are close to being done.

Step 2: Invite students to talk about the writing experience:
- *What was it like to reflect on your challenging situation?*
- *Would anyone like to share what they wrote?* [Note: Students do not have to share if they do not feel comfortable.]

Say:

Thank you for sharing. In today's session, we are talking about resilience. Resilience is the capacity to rebuild and grow from adversity. For example, you all just wrote about a difficult experience you have overcome, that shows some resilience.

Based on your experience, what are some strategies we can use to overcome setbacks?

Do:

A brainstorming activity and write down some of the strategies the students suggest. Students can evaluate and discuss pros and cons of each strategies and think of situations in which they will try to apply one of the strategies in the next few weeks.

Exercise 2: Positive Self-Talk

Time allotted:
- 20 minutes for the activity
- 5 minutes for the debrief

Suggestions
- As you guide students through the worksheet be mindful to let students come up with their own positive self-talk examples as much as possible. Refrain from giving too much input or too many examples.

Materials
- When the Going Gets Tough…The Tough Keep Going worksheet
- Pens/pencils

- Notebooks

Preparation
- Print the When the Going Gets Tough…The Tough Keep Going worksheets

Substitutions
None.

Instructions

<u>Say:</u>
Let's talk about negative voices in your head. Have you ever found yourself thinking you are stupid? You can't do anything? You are a failure?

If you have that it is actually very normal. Almost everyone, even the most successful people have at some point thought negatively about themselves. However, when those thoughts are making you anxious and stressed, they are not very helpful. This process of thinking negative things about yourself is called negative self-talk. When you want to build resilience, it is important to learn to recognize your negative self-talk and learn how to rephrase it and utilize positive self-talk instead.

I brought a worksheet to practice positive self-talk. On the first page, you'll see some examples of situatiosn and negative self-talk as responses to those situations. As a way of practicing positive self-talk, I would like for you to come up with examples of positive self-talk you could apply instead when a similar situation occurs.

On the second page, I would like for you to think of some situations in which you feel anxious or you notice that you talk negatively to yourself. Write those situations down along with your negative thoughts. Next, think about how you could rephrase that to be more positive.

<u>Do:</u>
Have students work on the worksheets.

<u>Keep in mind:</u>

As the students are working on this, check in with each of them and see how it is going. Refrain from giving solutions/examples as much as possible. Encourage students to think for themselves and ask the other students for suggestions first.

When students have filled it out, you can come back to the group and have students share their examples.

The worksheet is on the next page.

When the Going Gets Tough…The Tough Keep Going Worksheet

In this exercise, we will practice reframing situations through positive self-talk. In the left column, there are some situations described along with some thoughts. How can you reframe these thoughts through positive self-talk?

Situation	Negative self-talk	Positive self-talk
The teacher announces that there will be a test tomorrow.	I should not study, I will fail anyway	If I study, I will increase my chances of passing the test.
The teacher gives you a challenging task.	I can't do this. I feel stupid.	
The teacher asked the class a question	I should not answer, I always get it wrong	
There is an opportunity to join an enrichment activity in science	I should not sign up, I am bad at science and there is no way I can be good enough to that activity	
You get a test back and your grade is not as good as you had hoped	I can never get it right. I should just give up now.	

Your friend asks you to be his partner for a classroom activity	What if I am bad at it? Will my friend think less of me? I should probably just work on my own
You are having lunch and someone walks buy and looks at you noticeably	Oh no, is something in my teeth? Did I spill something on my close? They must think my shirt is stupid

What are some situation in which you have noticed that you get distressed, anxious, start thinking negative things about yourself?

Write some example situation down, write your negative self-talk down, and then look for what you could have said from a positive self-talk perspective.

Situation   Negative self-talk   Positive self-talk

Debrief

- What did we think of the activities? (thumbs up, horizontal, down)
- How are we feeling about ourselves now that we have completed this curriculum?
- What did you find most useful out of everything we discussed in these sessions?
- Which tools are you going to keep using and why?
- Any suggestions, thoughts, feedback, or questions?

Thank the group for their contribution and wrap up the session.

Exercise 3: Exit Ticket

Time allotted

- 5 minutes for the activity

Suggestions

At the end of each session, students will fill out an exit ticket worksheet. This is a moment of brief reflection on what they have learned and an opportunity for them to give feedback or pose questions they might not want to ask in front of the group.

Materials

- Worksheet
- Pen/pencil

Preparation: None

Substitutions: None

Instructions

Say:

This was our last session. I want to thank you all for participating! I hope you found it useful. We will fill out our last reflection now and then we are officially done.

Do:

Handout the worksheet and collect them as students walk out. Make sure students put their name on their exit ticket.

Session 6: Exit Ticket

First name:

Last name:

What are three things you learned in today's session?

What are some things you liked about today's session?

What are some things you would change about today's session?

Would you like to share anything else with the teacher? (e.g., suggestions, questions, thoughts, feedback)

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Appendix A: Toolbox
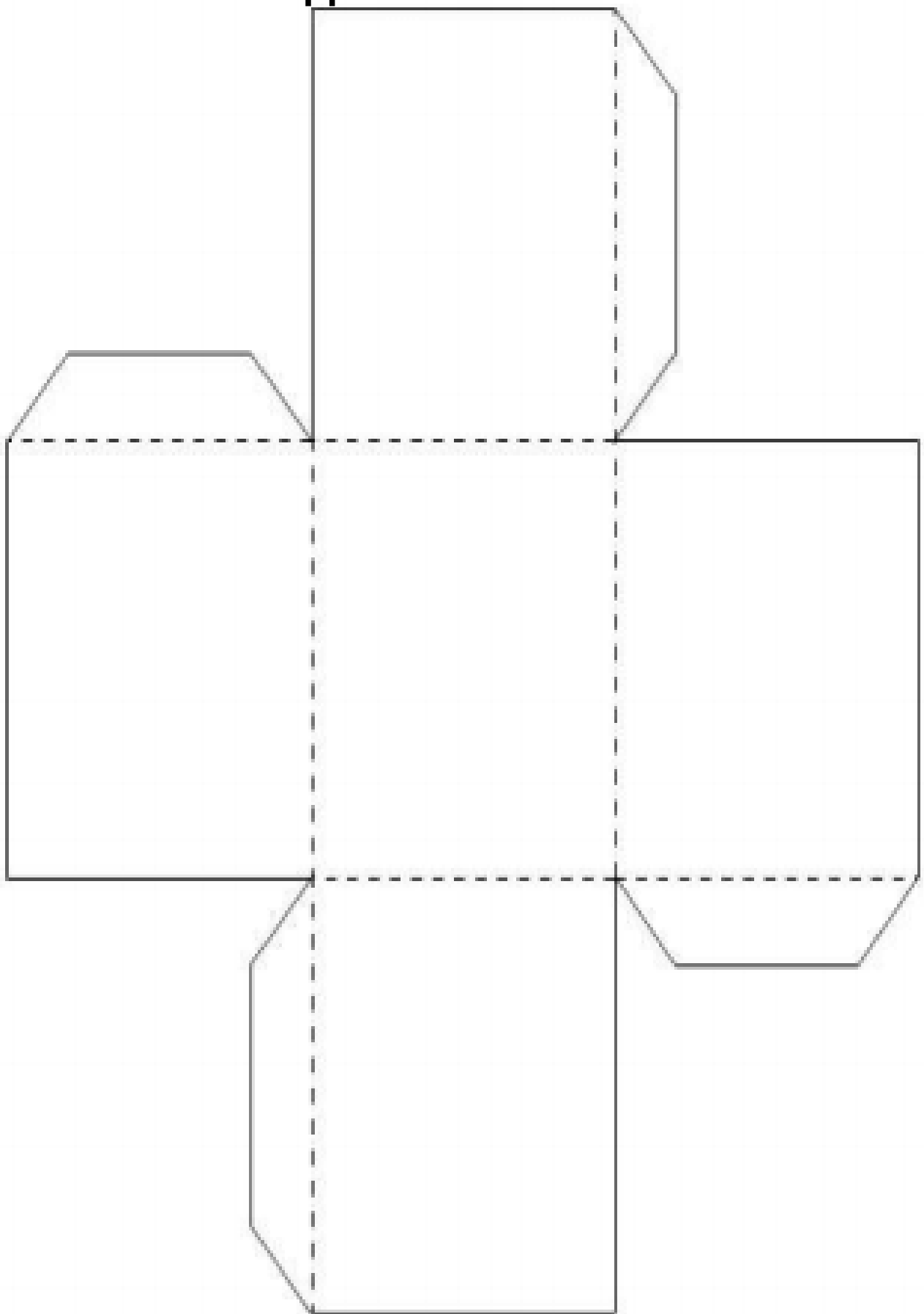
Appendix B: Self-monitoring tools

Session 4: Apps for self-monitoring

In this appendix I am giving you a variety of apps you can use to monitor your own habits and behaviors. I have split it up into two categories: (1) health and fitness goals and (2) productivity goals. I did my best to find free apps for all platforms, but you are welcome to try out others apps with similar function to monitor your own progress. Some general apps you may already have that could help you are: timers, calendar apps, list apps where you can keep track of your progress.

<u>Health and Fitness Goals</u>

App name	App goal	Platforms
Health App (There are other apps you can use on other platforms for each of these goals separately)	This app helps you monitor a variety of health and fitness related goals in one place. Among others it allows you to monitor: • Sleep • Activity • Mindfulness • Water intake • Nutrition	iOS
MyFitnessPal	This app helps you monitor a variety of health and fitness related goals in one place. Among others it allows you to monitor: • Activity • Water intake • Nutrition	iOS, android, Google
Moody	This app lets you track your mood. This is particularly helpful if you have goals related to levels of anxiety, anger, and gratitude.	iOS

Productivity goals

App name	App goal	Platforms
ScreenTime (iOS) and Quality Time (Google)	This app helps you monitor your phone use and screen time;	iOS, Android, Google
Tomato-timer Focus Booster Pomodone app Pomotodo	This app follows the Pomodoro method which is a method to increase productivity that follows the following principles: • Start a 25-minute timer • Work until the timer rings • Take a short 5-minute break • Every 4 pomodoro's (25-minute focus periods), you can take a 20 to 30 minute break	iOS, Android, Google, web based version
Trello	This app is a virtual pinboard that allows you to keep track of your to do, doing, and done tasks. You can organize this to help you keep track of all your different goals, monitor your homework and assignments and facilitate group work. This app allows you to collaborate with others and share trello's.	iOS, Android, Google, web based version
Success Coach	This app is a combination of many of the above. It allows you to set goals in all areas of your life and keep track of your progress toward achieving them. Specifically, this app is unique in that it is a structured environment to help you reflect on and plan toward achieving yoru goals.	iOS, Android, Google

Appendix D: Self-Monitoring

Student Self-Monitoring: **Frequency Count**

A frequency count is a recording of the number of times that a you engaged in a behavior during a specific time-period (e. g., during a class period). Frequency counts can be used to track behaviors that you want to increase or decrease.

How to Use This Frequency-Count Form. With this frequency count form, you record each occurrence of the behavior with a tally-mark ('/'). At the end of the time-period, you add up the tally-marks to get a total sum of behaviors for that observation session.

How to Set Up the Frequency-Count Form: Follow these steps to prepare the frequency-count form:

- *Define the Target Frequency-Count Behavior.* In the space below, describe the behavior that you will measure using a frequency count. (Here are some examples: "leaving my seat without teacher permission", "completing a math problem", "requesting teacher help", "talking with other students about off-task topics"):

  Target Behavior to Measure: _____

- *Choose a Schedule for Conducting the Frequency Count.* Decide when you will use the frequency-count form to track the target behavior:

  I plan to conduct the frequency count at the following time(s) and/or during the following activitie(s):
  _____ .

1	**Tally Box:** Write a mark ('/') in this box each time the target behavior occurs:	>	Total Behaviors for Session
Date: ___/___/___			

2	**Tally Box:** Write a mark ('/') in this box each time the target behavior occurs:	>	Total Behaviors for Session
Date: ___/___/___			

3	**Tally Box:** Write a mark ('/') in this box each time the target behavior occurs:	>	Total Behaviors for Session
Date: ___/___/___			

4	**Tally Box:** Write a mark ('/') in this box each time the target behavior occurs:	>	Total Behaviors for Session
Date: ___/___/___			

5	**Tally Box:** Write a mark ('/') in this box each time the target behavior occurs:	>	Total Behaviors for Session
Date: ___/___/___			

Grade/Classroom: _____

Student Name: _____

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Grade/Classroom: _____

Student Name: _____

Student Self-Monitoring: **Behavior Rating Scale**

This self-rating scale allows you to rate how well you carry out selected behaviors.

How to Use This Behavior Rating Scale. This scale is to be used to rate your selected behaviors at the end of a pre-determined period (e.g., after independent work; at the end of the school day; at the end of math class.)

How to Set Up the Behavior Rating Scale: Follow these steps to prepare the rating scale:

- *Select Behaviors.* In the left column of the table below, write down up to 6 behavior goals that you plan to rate (e.g., stay in seat, complete seatwork, work well with others, participate in the activity, keep workspace clear).
- *Choose a Schedule for Completing the Rating Scale.* Decide when you will fill out this self-rating scale (e.g., after independent work; at the end of the school day; at the end of math class; just before lunch and again at school dismissal).

I plan to complete this rating scale on the following schedule:

_____.

Behaviors: How well did I...	1 Date __/__/__	2 Date __/__/__	3 Date __/__/__	4 Date __/__/__	5 Date __/__/__
•	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor
•	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor
•	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor
•	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor
•	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor	☐ Good ☐ Fair ☐ Poor

Student Self-Monitoring: **Behavior Checklist**

Behavior checklists are simple way to 'check off' whether or not you carry out selected behaviors.

How to Use This Behavior Checklist. This behavior checklist can be used before starting an activity to ensure that you are prepared (e.g., before beginning independent work) or after the activity (e.g., at the completion of independent work) to track whether you displayed target behaviors. This behavior checklist form allows you to list up to 6 different behaviors. NOTE: Checklists are an excellent tool at the end of an assignment for you to use to check your work.

How to Set Up the Behavior Checklist: Follow these steps to prepare the checklist:

- *List Behaviors to Be Tracked.* In the left column of the table below, write down up to 6 behaviors to make up your checklist. Good checklist items are those that can be easily verified as 'done' or 'not done' (e.g., arrived to class on time; brought all work materials to class; avoided chatting with classmates during independent work time).
- *Choose a Schedule for Completing the Behavior Checklist.* Decide when you will fill out this checklist (e.g., before or after independent work; at the start or end of the school day; before or after math class).

I plan to complete this behavior checklist on the following schedule:

_____.

Behaviors: I engaged in these behaviors...	1 Date ___/___/___	2 Date ___/___/___	3 Date ___/___/___	4 Date ___/___/___	5 Date ___/___/___
•	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
•	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
•	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
•	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
•	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Grade/Classroom: _____

Student Name: _____

TABLE 11.3 *Self-Evaluation Form*

Dates	Mon.		Tues.		Weds.		Thurs.		Fri.	
Before Class										
1. Do I have my homework completed?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
2. Did I bring my materials (pencil, assignment log, and composition book)?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
3. Did I find out what I will be doing in class (listen to the teacher, look for the assignment, ask if I don't know)?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
4. Did I write the assignment/activity in my assignment log?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
5. Did I get started on time within 60 seconds?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
During Class										
6. Did I ask myself during the period, "Am I working?" Respond yes or no.	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
After Class										
7. Did I follow the teacher's directions?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
8. Did I work on the assignment during the entire time I was given?	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
9. Do I have homework tonight? If yes, write in my assignment log.	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
10. Rate my behavior: (Circle the number) 1 = poor 2 = needs improvement 3 = okay 4 = good 5 = great	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
For the Teacher										
11. Please rate the student's behavior: 1 = poor 2 = needs improvement 3 = okay 4 = good 5 = great	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	

APPENDIX B. INTERVIEW PROTOCOLS

Study One Student Interview Protocol

Hello. My name is ___, and I am a _____ at Purdue University.

Thank you for agreeing to this interview. The purpose of this interview is to understand your experiences during the small group discussion sessions and at the camp in general. Please answer these questions based on your own experiences and from your perspective. There are no right or wrong answers. I will record this interview and analyze your responses along with responses from other students. We will not reveal your identity when we write about these results. If you do not understand any question, feel free to ask for clarification. If you have a question during the interview, you can ask me at any time. You can also ask me to stop the interview at any time or to turn off the recorder if there is something you do not want me to record. Do you have any questions before we start? If not, let's begin the interview.

- Participant name:

- Age:

- Grade:

- Date:

- Time:

- Location:

Questions

1. Tell me about some things you learned in the small group discussion sessions. (If hesitation: Name three things you learned during these sessions?)

2. Tell me about some activities or topics you found particularly useful or interesting.

3. Tell me about some activities or topics you found particularly challenging or difficult.

4. What aspects of these sessions had the greatest impact on you, if any?

5. Tell me whether participation in these small group discussions changed your beliefs regarding your academic achievement.

6. What are some of the nicest things that have happened to you at this camp? Tell me about what was nice about them.

    a. Tell me about some things you did not like at this camp?

7. Has anything changed in how you make sense of why you are underachieving?

    a. If yes, tell me more about what has changed and why you think that has changed?

8. Do you believe you could achieve more this year? Next year? Later? Tell me more about your view of the next year or more and how your participation in the small group discussions may have influenced this.

9. What was it like for you to participate in these small group discussion sessions?

10. What are some suggestions to improve these sessions?

Study One Camp Counselor Interview Protocol

Hello. My name is ___, and I am a _____ at Purdue University.

Thank you for agreeing to this interview. The purpose of this interview is to understand your experiences during the small group discussion sessions and at the camp in general. Please answer these questions based on your own experiences and from your perspective. There are no right or wrong answers. I will record this interview. I will not reveal your identity when I write about these results. If you do not understand any question, feel free to ask for clarification. If you have a question during the interview, you can ask me at any time. You can also ask me to stop the interview at any time or to turn off the recorder if there is something you do not want me to record. Do you have any questions before we start? If not, let's begin the interview.

- Participant name:

- Date:

- Time:

- Location:

Questions

1. Tell me about your experiences leading the small group discussions. How did it go?

2. What changes did you make to the curriculum provided?

3. Tell me about the challenges you experienced in implementing the curriculum if any.

4. Tell me about some activities or topics you found particularly useful for students or interesting.

5. What aspects of these sessions (if any) had the greatest impact on students?

6. Tell me about changes in motivation/self-esteem/engagement (I will ask each as a separate question) you observed in students in these small group discussion sessions.

7. Based on the discussions you had with students, tell me about what you think they learned from these sessions.

8. Tell me about what has changed in how you view the needs and characteristics of gifted students? What influenced those changes?

9. Tell me about how you think students' participation in the intervention may influence their achievement in school.

10. What are some suggestions to improve the small group discussion sessions?

<div align="center">

Study Two Student Interview Protocol

</div>

Hello. My name is ___, and I am a _____ at Purdue University.

Thank you for agreeing to this interview. The purpose of this interview is to understand your experiences during the small group discussion sessions you participated in with [name of teacher]. Please answer these questions based on your own experiences and from your

perspective. There are no right or wrong answers. I will record this interview. I will not reveal your identity when I write about these results. I will not share what you said with your teachers. If you do not understand a question, feel free to ask for clarification. If you have a question during the interview, you can ask me at any time. You can also ask me to stop the interview at any time or to turn off the recorder if there is something you do not want me to record. Do you have any questions before we start? If not, let's begin the interview.

- Participant name:

- Age:

- Grade:

- Date:

- Time:

- Location:

Questions

1. Why did you volunteer for this research project?

   a. What does "underachievement" mean to you?

   b. Tell me about how that word fit you when you signed up for the small group discussion sessions? (potential follow up: in what ways were you underachieving? In what ways were you not underachieving)

   c. Tell me about how that word fits you now?

2. Tell me about your experiences in school this year.

3. Tell me about your academic achievement in middle school.

   a. How has it changed since elementary?

   b. How has it changed in the last year or so?

4. Tell me about your small group teacher.

5. Tell me about your small group companions.

6. Tell me about the small group discussions sessions.

    a. Tell me about some things you learned in the small group discussion sessions. (If hesitation: Name three things you learned during these sessions?)

    b. Tell me about some activities or topics you found particularly useful or interesting.

    c. Tell me about some activities or topics you found particularly challenging or difficult.

    d. What aspects of these sessions had the greatest impact on you, if any?

    e. Tell me about the exit tickets you filled out after each session.

7. Tell me about … [go over each session] (follow up includes: what did you learn, what did you like/dislike, what was challenging/useful, what strategies did you try out, etc.

    1. Welcome, rules, hello my name is, talent toolbox

    2. Turning dreams into goals

    3. Now I see me: self-monitoring and self-evaluation

    4. I thought I could and I did (videos)

    5. Comfort zone, self-directed learning

    6. Bounce back and positive self-talk

8. Tell me about your academic goals.

    a. How have small group discussion activities affected that, if at all?

    b. Tell me about what you are doing to achieve your goals.

    c. What strategies from the small group discussions have you tried? Tell me about that.

    d. How has your academic achievement changed?

    e. Tell me about how you plan to continue to work towards your goals.

9. Tell me about your learning strategies.

      a.   What changes have you made to your learning strategies?

10. Tell me about your academic achievement going forward.

      a.   Do you believe you could achieve more this year? Next year? Later? Tell me

           more about your view of the next year or more and how your participation in

           the small group discussions may have influenced this.

      b.   How does your participation in the small groups affect that?

11. What was it like for you to participate in these small group discussion sessions?

12. What are some suggestions to improve these sessions?

13. This is a chart of your classroom engagement. What do you notice and how do you
make sense of that?

14. This is a chart of your grades. Tell me what you notice and how you make sense of the
changes over time.

15. This is a chart of your engagement in class. Tell me what you notice and how you
make sense of the changes over time.

16. This chart shows your motivation. Tell me what you notice and how you make sense
of the changes over time.

Study Two Teacher Interview Protocol

Hello. My name is ___, and I am a _____ at Purdue University.

Thank you for agreeing to this interview. The purpose of this interview is to understand your

experiences during the small group discussion sessions. Please answer these questions based

on your own experiences and from your perspective. There are no right or wrong answers. I

will record this interview. I will not reveal your identity when I write about these results. If

you do not understand a question, feel free to ask for clarification. If you have a question

during the interview, you can ask me at any time. You can also ask me to stop the interview at

any time or to turn off the recorder if there is something you do not want me to record. Do you have any questions before we start? If not, let's begin the interview.

- Participant name:

- Date:

- Time:

- Location:

Questions

11. Why did you volunteer for this research project?

    a. What does "underachievement" mean to you?

12. Why did you recommend the students you did for the study?

13. Tell me about [student].

    a. How much did the label "underachiever' fit [student] at the start of the sessions, in your opinion?

    b. How much does the label "underachiever' fit [student] now?

    c. Tell me about [the student's] participation/engagement in the small group?

14. Tell me about the small group discussion sessions.

    a. What changes did you make to the curriculum provided?

    b. Tell me about the challenges you experienced in implementing the curriculum if any.

    c. Tell me about some activities or topics you found particularly useful for students or interesting.

    d. What aspects of these sessions (if any) had the greatest impact on students?

15. Tell me about … [go over each session] (follow up includes: what did you learn, what did you like/dislike, what was challenging/useful, what strategies did you try out, etc.

    1. Welcome, rules, hello my name is, talent toolbox

2. Turning dreams into goals

3. Now I see me: self-monitoring and self-evaluation

4. I thought I could and I did (videos)

5. Comfort zone, self-directed learning

6. Bounce back and positive self-talk

16. Tell me about changes in motivation/self-esteem/engagement (I will ask each as a separate question) you observed in students in these small group discussion sessions.

17. Tell me what you think students learned from these sessions based on your discussion and interactions.

18. Tell me about your perceptions of the needs of students with gifts and talents.

    a. How has your experience in these small groups changed these perceptions? (follow up with questions to identify the specific aspects that changed and why)

19. Tell me about how you think students' participation in the intervention may influence their achievement in school.

20. What are some suggestions to improve the small group discussion sessions?

APPENDIX C. TRAINING COMPREHENSION CHECK

1. On a scale from 1(not at all) to 10 (extremely) please answer the following questions:
   - How confident do you feel in your ability to facilitate the small group discussions?
     Rating (1-10):

     Explanation:

   - How would you rate your knowledge of the AME curriculum?
     Rating (1-10:

     Explanation:

   - How useful did you find the training?
     Rating (1-10):

     Explanation:

2. What are your main take aways from the training?

3. Do you have any suggestions for how we can improve the training?

4. Do you have any questions for me?

Demographics
   - First name: _____
   - Last name: _____
   - Years of experience teaching: _____
   - Highest level of education: _____
   - Did you receive training on Giftedness or high ability before? If so, what?
     _____
   - What gender are you?
     o Male
     o Female
     o Other:
   - What race or ethnicity do you identify as? (Select all that apply)
     o Asian
     o Black or African American
     o Hispanic or Latinx
     o Native American or American Indian
     o Native Hawaiian or Other Pacific Islander

o White
o Other: _____

Scenario 1

During a small group discussion session on goal setting, a grade student with a current C average says: "I definitely think I can get all As and Bs but it's just like, I don't know. I'm just not really motivated right now. Because I'm an eighth grader, it's not like I'm 100% set on my college and I know my college is not going to see my eighth-grade scores. It gets me down to think about that.

1) Do you think this student is gifted, creative, or talented and why or why not?

2) What are some specific strategies you would you use with this student and why?

3) What are some strategies that may <u>NOT</u> work with this student? Please explain why.

4) Do you think this student is underachieving? Please explain why or why not.

Scenario 2

During a small group discussion on how to deal with setbacks a student who has come across as unmotivated says: I am getting stressed because I keep postponing my school work and I don't like asking for help. I know I should ask for help and I try, but I don't want to ask and then if I still don't understand it I don't know, I just don't want to ask for help I guess.

1) Do you think this student is gifted, creative, or talented and why or why not?

2) What are some specific strategies you would you use with this student and why?

3) What are some strategies that may <u>NOT</u> work with this student? Please explain why.

4) Do you think this student is underachieving? Please explain why or why not.

APPENDIX D. QUESTIONNAIRES AND SURVEYS

Demographics and Grades Questionnaire

Please tell us a little bit more about yourself. Thank you for taking a few minutes to complete this questionnaire.

First name: _____

Last name: _____

Age: _____

Gender: _____

Grade: _____

School: _____

What race or ethnicity are you? (Select all that apply)

- American Indian or Alaska Native

- Asian

- Black or African American

- Hispanic or Latinx

- Native Hawaiian or Pacific Islander

- White

- Other: _____

What is your current GPA? _____

What is the highest your GPA has been so far? _____

What is the lowest your GPA has been so far? _____

Do you feel your GPA reflects your ability?

- Yes

- No

  Please explain why or why not.

Are you gifted, creative, or talented?

- Yes

  If yes, were you formally identified?

    o Yes

      o No

- No

When your grades do not reflect your ability, you may be underachieving. Based on this definition, do you think you are underachieving?

- Yes

- No

    Please explain why or why not.

What do you think causes students to not achieve as well in school as they could? Please give at least five reasons

Model Evaluation Questionnaire

Thank you for taking a few minutes to complete this questionnaire.

First name: _____   Last name: _____

What is your current GPA? _____

You recently participated in a series of small group-discussions on topics such as motivation and goal setting. **Please answer the following questions thinking of what you learned during those sessions**.

1. On a scale of 1 to 5(1 = Never; 2 = almost never; 3 = sometimes; 4 = most of the time; 5 = almost always), how frequently do you use the strategies and tools you learned during that session?

          1   2   3   4   5

2. What are some strategies you learned during those sessions that you still use?

3. Describe your process of studying for a test. What are some strategies you use and when do you start preparing?

4. What is your goal after high school?

5. How do you plan to work toward that goal?

Post-Camp Survey

Only the questions I used for analysis are presented here. Data collected as part of other research projects were omitted.

How would you rate your residential hall experience? 1 being poor and 5 being excellent.

Your feedback is important! Your honest-and anonymous-responses will help future camps.

My counselor's skill to communicate with me.

 My counselor's competency.

The warmth of my counselor.

My counselor's respect for every member of my small group.

The level of comfort I felt with my counselor.

The mixed Gender groups

 My counselor ability to facilitate a mixed gender group

 My counselor ability to work with all genders equally and easily

Open Ended Questions:

- What are some things you learned during the small group sessions?
- What were your three favorite things about GERI camp?
- If you could change something about GERI camp to make it better, what would it be?
- Additional Comments

APPENDIX E. OBSERVATION PROTOCOL

Engagement Observation Protocol

This document intends to help guide the daily behavioral engagement observation. Before you start the observation, read the definitions and instructions to get a better idea of what engaged behavior looks like.

Instructions

1. Prepare by filling out the information on top of the next page.

2. Set a timer for five-minute intervals.

3. Observe the students engaged behavior using the descriptions below. Each five-minute interval, indicate if the student was engaged the whole five minutes (i.e., mark yes). If the student was not or only partly engaged, mark no.

4. If the student is not observed during an interval (e.g., they step out for a bathroom break or the class ends early) indicate by putting down NA.

Definitions

Engagement is defined by seeing one or more of the following behavioral or verbal signals:

1. Concentration

   The student is paying close attention to the activity at hand. Only intense stimuli can defer the student's attention from the task at hand. It is essential to pay close attention to a student's eyes; when the eyes are no longer locust on the task at hand, the student has lost engagement.

2. Energy

   Energy can manifest by speaking loudly, wanting to finish a task quickly, but thorough. For example, imagine a student working while sticking out his or her tongue.

3. Complexity and creativity

    When a student expresses creative behaviors, such as elaborating or synthesizing.

4. Facial expression and posture

    Focus on a student's expression and body language to determine if he or she shows engaged behavior.

5. Persistence

    Do you see persistent concentration?

6. Accuracy

    How accurate are the student's responses to prompts? Higher accuracy indicates higher engagement.

7. Reaction time

    Quick reaction time to stimuli related to the activity indicates a higher engagement. However, if the student shows a fast reaction time to outside stimuli (i.e., stimuli unrelated to the task at hand), this indicates lower levels of engagement.

8. Verbal expression

    Any verbal expressions that could indicate engagement in the activity (e.g., the student asks questions, actively participates in class, etc.)

9. Satisfaction.

    Any indications (verbal or non-verbal) of the student's satisfaction with his or her work.

Student (first and last name): _____

Observer name: _____

Date T1: _____   Date T2: _____   Date T3: _____

Time T1: _____.   Time T2: _____. Time T3: _____

Week Nr. ____

T1	The student was engaged		T2	The student was engaged		T3	The student was engaged	
	Yes	No		Yes	No		Yes	No
5'			5'			5'		
10'			10'			10'		
15'			15'			15'		
20'			20'			20'		
25'			25'			25'		
30'			30'			30'		
35'			35'			35'		
40'			40'			40'		
45'			45'			45'		
50'			50'			50'		