

kid•FRIENDLy
Project 1: Students as Leaders

Literature Review of School Engagement and Dropout

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School Engagement

Increasing engagement between students and schools while allowing students to engage in their individual learning is a challenging matter (Klem & Connell, 2004). According to available research, students' engagement in school decreases as students advance to the next grade, from elementary to middle to high school (Klem & Connell, 2004; Fredricks & McColskey, 2012). Moreover, about 25% to 40% of students are chronically disengaged in their school (Fredricks & McColskey, 2012). The importance of school climate and school culture is increasing, and measures are being taken to promote school engagement. (Thapa, Cohen, Guffery, & Higgins-D'Alessandro, 2013; Fredricks, Blumenfeld, & Paris, 2004; Lawson & Lawson, 2013; Janosz, Archambault, Morizot, & Pagani, 2008).

Researchers and educators have been investigating how to improve students' academic achievement, and reduce boredom and disaffection for students with higher levels of academic performance, as well as how to prevent students from dropping out of school (Fredricks, et al. 2004). The concept of school engagement is a key element of both students' academic and social achievement. School engagement influences both students' attitudes towards their academic work, and it also impacts their attendance and social behaviors (National Center for School Engagement, 2006). Consequently, disengagement produces students who are "less likely to graduate from high school and face limited employment prospects, increasing their risk for poverty, poorer health, and involvement in the criminal justice system" (Fredricks & McColskey, 2012, p.763). There is no doubt that student engagement in school and learning is an important factor for success in students' school lives.

Klem and Connell (2004) found that "nearly one-half (44%) of urban elementary students and approximately one-third (30%) of the more diverse sample of middle school students were at

risk on attendance and/or test scores, only 16% of elementary and middle school students attained successful levels on both outcomes” (p.266) on the Student Performance and Commitment Index (SPCI). What students experience and feel in school indicates the direction of their attendance and achievement. Creating a school environment where students can accomplish their goals successfully is one of educators’ and policy makers’ responsibilities.

Furthermore, Lawson and Lawson (2013) mention the acceptance of a new initiative, Race-to-the-Top. The United States government has declared Race-to-the-Top including College for All to be as the new objective. This means that graduating high school is no longer considered to be sufficient. Students are expected to go on to advance education such as college, or vocational training so that the United States may be a better credential society. Lawson and Lawson (2013) also remark that postsecondary education completion is to become the new goal, and current student engagement research needs to extend outside of school, because there are many other factors that influence students, such as family, peer pressure, and community (Lawson & Lawson, 2013).

Students’ mindsets have been changing as well. Burkett (2002) considers the approach that certain students take to school—one in which they exert the least amount of effort possible while in school. Schools retain students by making attendance compulsory; however, “establishing a commitment to education is essential if youth are to benefit from what schools have to offer and acquire the capabilities they will need to succeed in the current marketplace” (Fredricks, et al. 2004, p.60). Research shows that the school climate has a significant impact on the student’s purpose of schooling, learning efforts, attitudes toward school and teachers, and feelings of belonging. (Thapa, Cohen, Guffery, & Higgins-D’Alessandro, 2013; Fredricks,

Blumenfeld, & Paris, 2004; Lawson & Lawson, 2013; Janosz, Archambault, Morizot, & Pagani, 2008; Fredricks & McColskey, 2012)).

The term school engagement is defined in many ways. Marks (2000) defines engagement as “a psychological process, specifically, the attention, interest, and investment and effort students expend in the work of learning” (as cited in National Center for School Engagement, 2006, p.1). Fredricks et al. (2004) state that “the idea of commitment, or investment, which is central to the common understating of the term engagement” (p.61). Furthermore, many researchers define and measure the term engagement in three ways: Behavioral engagement, Emotional engagement, and Cognitive engagement. Behavioral engagement encompasses everything from doing school work and following school rules to positive participation and conduct in learning (Fredricks, et al. 2004; Klem & Connell, 2004; Lawson & Lawson, 2013; National Center for School Engagement). Cognitive engagement is about a student’s will such as a student’s motivation, effort, and the strategy they imply to complete their school work; including the desire to master and understand their school work at or beyond the required level (Fredricks, et al. 2004; Klem & Connell, 2004; Lawson & Lawson, 2013; National Center for School Engagement). Emotional engagement includes students’ affective reaction such as interests, values, joy, sadness, and tediousness (Fredricks, et al. 2004; Klem & Connell, 2004; Lawson & Lawson, 2013; National Center for School Engagement). In contrast, Sciarra (2008) describe emotional engagement as feelings of belongingness, safety, comfort, and pride in classroom. If the degree of emotional engagement is higher, the relationship between teachers and students is better (Scierra, 2008). In other words, when students experience or have a sort of belongingness, they can be caring, respectful, and encouraging.

The three types of engagement overlap because the way students think, feel, and behave are all related. The main concept for each type of engagement can be explained separately and they are slightly different, but the sub-constructs under each idea are related and overlap. Fredricks et al. (2004) clarify how the three types of engagement are overlap with example constructs. According to their study, students' conduct and on-task behavior are associated with behavioral engagement. Students' attitude, interest, and values are associated with emotional engagement. Motivational goals and self-regulated learning are associated with cognitive engagement. One of the constructs for both behavioral engagement and cognitive engagement comprise "effort". While the construct effort is defined as simply doing school work in behavioral engagement, it is defined as the results from individual motivation to actually learning in cognitive engagement (Fredricks, et al., 2004).

Knowing the different types of engagement, students fall into different categories or different combinations. For examples, a student who has hard time with learning even though he/she does study hard can be said to be behaviorally engaged but not cognitively engaged. Wentzel (2000) describes "ideal" students based on a middle school teacher's perception. Three types of desirable outcomes are as follows: "(a) socially integrative characteristics such as sharing, being helpful to others, and being responsive to rules; (b) motivational qualities such as being persistent, hard working, inquisitive, and intrinsically interested; and (c) performance outcomes such as getting good grades and completing" (p.320). These three desirable outcomes for students are strongly related to the above mentioned three types of engagement.

Fredricks and McColskey (2012) list several ways of measuring students' engagement. First, self-report surveys are the most typical method, especially beneficial for evaluating emotional and cognitive engagement. Second, experience sampling (ESM) is a technique that

reports and collects data on engagement in real time rather than relying on recall. Third, teacher checklists or rating scales are used as indicators of engagement. This methodology is useful for younger children, who have limited reading and literacy skills. Finally, two other methods are interview and observation. These are done at the individual and classroom levels to measure engagement.

For our engagement evaluation, the three-dimensional engagement theory and self-report survey method were used as references in our survey development. The main reason why we adapted the three-dimensional engagement idea was that it was widely used and highly regarded in many research articles (Fredricks, et al. 2004; Klem & Connell, 2004; Lawson & Lawson, 2013; National Center for School Engagement; Regional Educational Laboratory, 2011). According to a report from the Regional Educational Laboratory (2011), there are 21 instruments related to school engagement. Each instrument summary report is described and available for the upper elementary to secondary level. Those surveys are the main tool to measure students' engagement degree. The most common survey method was student self-report questionnaire. Examples of existing surveys related to school engagement are as follows: 4-H Study for Positive Youth Development; School Engagement Scale (4-H); Student Engagement Instrument (SEI); Student School Engagement Survey (SSES); Academic Engagement Scale of the Consortium on Chicago School Research Biennial Survey (CCSR/AES); Engagement versus Disaffection with Learning (EvsD); student and teacher reports; the High School Survey of Student Engagement (HSSSE); Motivation and Engagement Scale (MES); and the School Engagement Measure (SEM).

Among the previously mentioned surveys, the High School Survey of Student Engagement (HSSSE) and the Student School Engagement Survey (SSES) were used in order to

develop our survey items because of conceptual similarity of those instruments to the instrument we have been developing. The questionnaire items in HSSSE and SSES were reviewed, selected, and modified in phrasing and vocabulary to create our instrument items. We determine that it is important for researchers and educators to monitor students' engagement when seeking to reform a school. This is because students' engagement directly related to students' academic work and their social development. The survey results should reveal the risk level of disengagement and academic failure (Regional Educational Laboratory, 2011). By monitoring the students' engagement trends, the efficacy of students' engagement will be revealed so that students' academic can be improved and truancy can be reduced.

Studies indicate that many students become less focused and connected to their school as they advance elementary to high school (Klem & Connell, 2004; Fredricks & McColskey, 2012; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). The results of this phenomenon have influenced students' academic performance and social behavior. Therefore, today's teachers encounter numerous problems in schools. In addition, most schools seek a school reform in order to improve their curriculum, culture of learning, and student academic performance. In culturally diverse schools, the dynamics of diversity have the potential to contribute to tension, miscommunication, and an adversarial environment. Because of the demography differences and issues that exist within culturally diverse school environment, various programs have been implemented to improve school engagement, academic performance, and social behavior.

As an example a successful initiative, the social and emotional learning (SEL) program was introduced by Durlak et al. (2011). Their large scale meta-analysis study indicates that students who participated in the SEL program showed improvement in their social and emotional

skills, behavior, and academic performance. Relative to the 270,034 students in the meta-analysis conducted by Durlak et al. (2011), students who participated in the SEL program made an 11 percentile gain in these domains. Its intervention was implementing the four recommended practices that are related to skill improvement for the participants. Correspondingly, the SEL program significantly boosts students' engagement to their school, behavior, and academic performance.

A different study by Betts, Appleton, Reschly, Christenson, and Huebner (2010) evaluated a measurement of student engagement, the Student Engagement Instrument (SEI). The purpose of their research was to reconsider the construct validity of the SEI. The participants, 2,416 students, completed the report-survey. The SEI is designed to gauge five parts of student engagement: Teacher-Student Relationship, Control and Relevance of School Work, Peer Support for Learning, Future Aspiration and Goals, and Family Support for Learning. The researchers concluded that the SEI can measure cognitive and affective engagement and provide useful evidence for both middle and high school students.

The validation of instruments is necessary before they can be used to measure the effectiveness of any programs. The Leader in Me (LiM) is a long-term program geared towards: “1) improving students achievement in core academic subject, 2) preparing students with 21st century life skills, and 3) creating a learning culture where students and adults feel safe and engaged” (The Leader in Me Promising results). The LiM is unique in that it is designed to cultivate aptitude in three distinct areas, academic performance, 21st century skills, and learning culture. In order to impact students, the 7 habits are introduced as their intervention. The predicted outcome from this intervention is that “as the culture improves and students gain effective life skills, [...] there should be a concurrent bump in student achievement” (The Leader

in Me Promising results). The LiM is founded upon Stephen Covey's 7 habits of highly successful people, and it all made integrate parts of the school environment. The LiM already appears to be improving performance in the schools in which it has been deployed. This is significant in that schools need to find new and effective ways to improve both their performance and climate of learning.

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School Dropout

The United States is currently dealing with a dropout crisis. It is estimated that 25% of public school students who began high school in the fall of 2000 did not earn a diploma four years later in 2003-2004 (Rumberger, 2008). More recent numbers have shown that 1.3 million students from the high school class of 2010 failed to earn a high school diploma. Looking at this number another way means that schools in the United States are losing an average of 7,200 students every day (Rumberger & Rotermund, 2012). For the 2003–2004 school year, the U.S. Department of Education estimated a national graduation rate of 74.3%. However, other recent studies have begun to re-evaluate the methods of national graduation estimation and have reported that the national average graduation rates are less than 70% (Bowers, 2010). Dropping out is not an event that occurs at any single point in time. An increasing amount of research implies that dropping out is the final stage in an extended and complicated progression of disengagement and detachment from school (Rumberger & Rotermund, 2012; National Research Council, 2011; Bowers, 2010; Balfanz, 2009).

In the research that has attempted to study and assess which students drop out, there has been an emphasis on recognizing early indicators of probable student dropouts to help schools focus resources for children that are more likely to be at risk of dropping out of school (Bowers, 2010). Disengagement may begin as early as elementary school, when students do not participate in either the academic or the social characteristics of school life (Rumberger & Rotermund 2012). Poor or failing performance on assignments, misconduct, failure to do schoolwork, and absence of participation in extracurricular activities are all indications of disengagement. This can often lead to frequent absences, retention in grades, and repeated transfers to other schools (National Research Council, 2011). This issue is important not only in helping understand which

students will drop out, but also to help in a school's decision to require dropout interventions to students deemed at-risk for dropping out. If a dropout indicator is not accurate, then some students could be misidentified as more likely to drop out when in reality they would have graduated without any interventions (Bowers et al. 2013; Balfanz, 2009).

Graduating from high school in the United States has been proven to lead to better-quality futures for students, as opposed to students who drop out of school or earn a substitute diploma (Rumberger & Rotermund 2012; Bowers, 2010). There is years of research to show that students who do not graduate from high school have higher rates of unemployment and incarceration and lower lifetime earnings and life expectancy (Bowers, Spratt, and Taff, 2013; Rumberger & Rotermund 2012). For example, about half of all welfare recipients and half of the prison population in the United States do not have high school degrees and dropouts' salaries are far behind those who did graduate from high school (Suh & Suh, 2011). A recent study (2007) predicted that each student who graduates from high school will create more than \$200,000 in government savings (Rumberger & Rotermund, 2012). The Alliance for Excellent Education estimates that, "if the students who dropped out of the class of 2009 had graduated, the nation's economy would have benefited from nearly \$335 billion in additional income during the course of their lifetimes" ("A Path to Graduation for Every Child: State Legislative Roles and Responsibilities," 2011).

It requires a better understanding of why students drop out in order to address the dropout crisis. Yet recognizing the reasons why a student drops out is tremendously challenging. Like other methods of scholastic achievement (e.g., test scores), the process of dropping out is manipulated by an assortment of influences associated with both the individual student and to the family, school, and community settings in which the student resides (Rumberger & Rotermund

2012; Rumberger, 2008; Rumberger, 2001). These concerns with early dropout identification are particularly challenging, given current struggles to design and evaluate dropout prevention programs (Bowers, 2010). The objective of an early warning system, to notify a school early that a student is at a greater probability for dropping out in the future, is to appropriately recognize the students who will drop out, without inaccurately flagging students who would have graduated anyway (Bowers et al. 2013; Balfanz, 2009).

For many districts throughout the country, early student dropout identification is fundamentally important so that the different districts can possibly intervene immediately in a student's education career to help interrupt or avoid having them dropout. Overall, the studies reviewed for this project varied significantly in the grade level at which each indicator was considered, what the dropout indicator was, the sample size of each of the studies and the dropout rates. Grade levels fluctuated from observing indicators in kindergarten and first grade up through the student's final semesters of high school in grades 11 and 12. Sample sizes also ranged from a low of less than a hundred through almost 50,000 students. Dropout rates reported were significantly different, from a low of 3% to a high of 57%, depending on the setting and the number of grade levels encompassed (Bowers et al. 2013). For the purposes of this research grant, the following indicators were identified as the most predicative, while being easier for students to self-report (Agree/Disagree) on the survey.

I have missed 10 or more days of school this year
I have gotten poor or failing grades in reading (English).
I have gotten poor or failing grades in math.
I have had lots of referrals, suspensions, or both this year.
I have had to repeat a year in school (or a class or course credit).

I have often chosen NOT to do my schoolwork.
I have spent a lot of time with people who don't care about or do well in school.
I have thought about dropping out of school.
I am usually NOT interested in school.
I think that school is mostly boring.

These factors were identified through research studies and articles on dropout indicators. The articles were reviewed to determine which indicators were used more frequently and were identified as being able to better predict which students would drop out of school. The predictive indicators were listed and tallied to determine how often each was used. A meta-analysis by Bowers et al. also reviewed the literature on the most accurate indicators of students at risk for dropping out of high school. Then the list of factors was further narrowed by eliminating ones that were deemed too difficult for students to self-report on the survey (i.e. their family's socioeconomic status). The ultimate goal was to reduce the extensive list of indicators to factors that were within the student's control.

The survey, with included dropout indicator questions, was given to grades 4, 6, 8, 9, and 11 in the participating 22 districts. Balfanz (2009) found that sixth graders who did not pass math or English/reading, went to school less than 80% of the time, received a notice of misconduct or misbehavior in any of the core classes, only had a 10-20% chance of graduating when they were supposed to. Less than one in every four students who had at least one early warning indicator graduated within one extra year of when they originally should have. The earlier in their education career a student begins to show signs of disengagement and a lack of participation in school, the more likely they will be to leave without having earned their diploma. Without

successful intervention for these students, their behaviors do not usually disappear or improve over time and lead to the student's course failures, grade retentions, and eventually, they drop out (Balfanz, 2009).

Early intervention with students may be the most influential and money saving approach to preventing students from dropping out (Rumberger, 2001). Some programs, like The Leader in Me, are often helpful in keeping students engaged and actively participating in school. Schools throughout the country are reporting documented improvements in academic scores, experiencing reduced discipline problems, greater parent satisfaction, improved student self-confidence, enhanced school cultures, and increased teacher pride, all of which are factors helpful in preventing students from dropping out. One reason this program is beneficial is because it is introduced to students the moment they begin kindergarten, and continues through their high school career. The Leader in Me program is designed to help students learn the skills and abilities essential to be successful in life (Covey, 2008). These are the types of skills that prevent students from dropping out of school in the first place.

As students continue through school, establishing their personalities and identities, they oppose an extensive assortment of issues that may influence their choice to leave school. These factors, including failing classes, boredom, numerous absences, retention in grades, and repeated transfers to other schools, vary according to the age of the student, the grade in which the student is enrolled, and even the ethnicity and gender of the student (Stearns and Glennie, 2006). The Leader in Me program has a positive impact on some of the most predictive dropout indicators because it is designed to increase teacher effectiveness, student engagement, and academic achievement, while preparing students to be leaders in the 21st century (Covey, 2008).

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