

Educational Engagement and Degree Attainment Among High School Dropouts

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This research investigates the relationship between educational engagement and high school degree attainment among school dropouts. Educational engagement considered in this article focuses on student factors such as educational aspiration, organizational skills, and locus of control. Findings of this study show that self-concept engagement factors have a long-lasting impact on degree attainment, while school-related personal factors appear to be temporary. Fostering self-esteem, good study habits, and organizational skills while in school are significantly associated with eventual degree attainment among dropouts.

Introduction

Engagement implies connection, participation, attachment, and integration in particular settings and tasks. Educational engagement entails behavioral, psychological, and cognitive components that reflect commitment to learning and successful academic performance (Caraway, Tucker, Reinke, & Hall, 2003). It involves the student's psychological investment in learning, comprehending, and mastering knowledge. Thus, educational engagement is more than motivation or general desire to succeed in education (Connell, Halpern-Felsher, Clifford, Crichlow, & Usinger, 1995). High levels of educational engagement are associated with lower dropout rates and lower teen pregnancy rates (Monlove, 1998). On the other hand, disengagement involves isolation, alienation, detachment, and separation. Lack of school engagement among adolescents results in serious consequences such as increased risk for school dropout, substance use, teenage pregnancy, and criminal activity (Caraway et al. 2003).

Students' level of engagement can be assessed through the way they complete class work, whether they maintain educational expectations or aspirations for themselves, whether they complete homework on time, whether they control their TV watching, whether they attend class regularly, and whether they participate in class discussions and other school activities.

In this study, we explore student factors of educational engagement, one aspect of educational attachment, as it relates to degree

attainment among dropouts. Considerable research has been found that there was the association between school factors and school dropout (Connell et al., 1995; Monlove, 1998). School factors frequently considered include relationship with teachers, peer networks, and connections to school. These factors were found to be significant while youths were still enrolled in school, but not after they had already dropped out. This study focuses on the adolescents who already dropped out of school, most of whom obtained high school credentials through the General Education Development (GED) in place of a high school diploma. We believe that student factors have a major impact on dropouts' degree attainment. Little research has been conducted about how dropouts go about high school education in out-of-school settings, how they self-regulate their learning in these settings, and whether educational engagement in school has long-term effects on their degree attainment. The purpose of the present study is to evaluate the impact of educational engagement on degree attainment among dropouts. More specifically, we investigate the impact of 8th graders' educational expectations, organizational skills, locus of control, study habits, time-use efficiency, self-esteem, and absences on high school degree attainment among dropouts. The next section of this paper reviews the literature. Section III describes the data and provides a description of the statistical methodology. Section IV explains the logistic regression model. Section V discusses the results and implications of the findings.

Educational engagement and school completion

Across the nation, today's schools are seeking ways to increase academic achievement and reduce the dropout rate. A great deal of research has been conducted in an effort to identify factors that contribute to dropping out of school before high school graduation. Variables that influence school dropout appear to come from various domains such as individual, family, and school (American Council on Education, 2002). Using the national longitudinal data, Suh, Suh, and Houston (in press) identified 20 important contributing factors to school dropout and suggested that students at-risk of dropping out face different problems and difficulties, and thereby different intervention strategy is required to improve high school completion rate.

Though many background factors and deviant behaviors were found to be associated with dropping out of school, important student factors such as routine study habits, time management efficiency, and educational engagement have not been given much attention. In a

Midwestern school survey for 9th graders, Fulk (2003) noted that poor preparation, poor time management, lack of motivation, and poor homework completion were teachers' main concerns regarding study skills. Students, on the other hand, rated themselves lowest on study habits, self-regulation, and test anxiety. In this literature review, we have considered student factors, which are directly or indirectly related to educational engagement and successful completion of school. The consistent and robust factors for school completion include educational expectation, self-control, study habits, and time-use efficiency. Suh et al. (in press) support this view that educational expectation is a major factor in dealing with school completion. In a national data analysis, Rumberger (1995) predicted that students whose educational expectations were less than high school graduation were seven times as likely to dropout as students with educational expectations that were more than high school graduation. Educational expectation of adolescents is a domain of self-determination that pertains to how they think about their potential and about their future. Psychologists suggest that students who feel competent in academics will anticipate future success and these perceptions can lead to positive outcomes (Seligman, 1995).

Lack of motivation is another important psychological factor predictive of dropout. Using the motivational model, Vallerand, Fortier, and Guay (1997) proposed that feelings of competence and self-determination were two fundamental components of intrinsic motivation. Since the 1970s, researchers have developed an extensive empirical and theoretical body of literature documenting the relationships between students' locus of control and their academic achievement (Ford, 1994). Educational research on the attribution of motivation is concerned with understanding or measuring the causes of academic successes and failures. Attributions generally have three dimensions: (a) locus, (b) stability, and (c) controllability. Locus of control is concerned with the actual location of a cause to the individual – whether internal or external. Individuals with an internal locus of control believe that their behavior is directly responsible for specific outcomes. By contrast, individuals with an external locus of control believe that their behavior and the consequences are independent. Research findings have been quite consistent over the years suggesting that students with an internal locus of control were more likely to be successful in education than students with external locus of control (Ford, 1994).

Some researchers have focused on the basic academic skills such as study behavior and time management to improve the school completion

rate (Stanley, Slate, & Jones, 1999). Literature supports the importance of study skills and study behavior for high school students because, unlike elementary or middle school students, high school students are faced with increased demands both in independent study skills and in the amount of content covered in class (Reith & Polsgrove, 1994). Study behavior and time management were not a main concern during the elementary and junior high school period because teachers' personal attention and vigilant monitoring was possible and there were not credits required for graduation (Fulk, 2003). This personal attention is not present in the larger high school environment. Further, credit requirements in core courses for high school graduation are barriers to completion. Greater coverage and lack of teachers' care in high school forces youths to develop good study behaviors and better time management skills to be successful in high school. Today's students report spending fewer hours on homework and studying than students in the past. The American Council on Education (2002) reports that time spent studying in high school has steadily declined. In 1987, about 53 percent of students reported spending fewer than 6 hours per week on homework and studying. That number became 65 percent in 2001. Miles (2000) pointed out that, as a child advances through junior or senior high school, the link between doing homework and maintaining successful achievement strengthens. Kelly (2003) found that the ability to use time efficiently is an important skill for students to develop and found that students who do not complete their assignments on time tend to earn poorer grades.

Though there were a few studies that investigated predictors of degree attainment among dropouts (e.g., Suh & Suh, 2004), there was no research that directly links educational engagement to degree attainment. As long as in-school students' engagement is associated with school completion, it is possible that subsequent degree attainment among dropouts will be affected by their educational engagement developed while they were in school. One of most important roles of educational engagement for high school students is that it facilitates independent learning. Students who drop out but are independent learners have a higher likelihood of completing a high school education after dropping out. This study investigates the impact of student educational engagement on degree attainment among adolescents who already dropped out of school.

Methods

Data

Data were drawn from the NELS:88/00 database conducted by the National Center for Education Statistics (NCES) in the Department of Education. NELS:88 is a nationally representative longitudinal sample of U.S. students enrolled in eighth grade in 1988. Students were first interviewed in 1988, and then re-interviewed in 1990, 1992, 1994, and 2000. The sample also includes dropouts in 1990 (at the equivalent of 10th grade) and in 1992 (at the equivalent of 12th grade). Data from waves 1 - 5 of the NELS:88/00 contain 12,144 youths. There were 10,341 youths who have never dropped out of school and received their high school diploma by the end of 2000. There were 1,803 youths who dropped out of school at least once during their high school years. At the time the data were collected in 2000, 111 of these dropouts were either continuing to work on their high school diploma (20 youths), or pursuing a GED (91 youths). There were six youths whose statuses were unknown and 256 youths who had missing variables. The current research sample includes 1,430 dropouts, excluding graduates who did not drop out, those who were still working towards obtaining a credential of some sort, or those who failed to answer. Among 1,430 dropouts, 963 youths successfully completed high school education through either receiving a diploma or obtaining a GED. The final dropouts (or permanent dropouts) are 467 youths who were neither working for nor ever attained a high school diploma or its equivalency.

The total sample was composed of 678 males and 752 females. Among the dropouts, 890 were white, 170 were black, 299 were Hispanic Origin, 28 were American Indian or Alaskan Native, 34 were Asian or Pacific Islander, and 9 were missing or more than one race.

Procedure

The NELS:88/00 collected extensive information about youths' behavioral, personal, educational, and familial experiences over the years. Among the data collected, seven student factors related to degree attainment were selected to represent educational engagement. They include: (a) how sure that you will graduate from high school (EXPECTATION), (b) locus of control (LOCUS), (c) number of hours spent on homework per week in base year (HOMEWORK), (d) number of hours respondent watching TV on weekdays (TV), (e) I feel good about myself (FEEL), (f) number of days missed from school (ABSENCE), (g) How often do you come to class and find yourself without a pencil, paper,

or book? (BOOK). Among seven predictors, EXPECTATION, FEEL, and BOOK are qualitative variables and LOCUS is an index variable.

EXPECTATION was coded 1 if the student was very sure to graduate, 2 if probably will graduate, 3 if probably will not graduate, and 4 if very sure won't graduate. FEEL was coded 1 if the student strongly agreed to feel good about her/himself, 2 if agree, 3 if disagree, and 4 if strongly disagree. BOOK was coded 1 if the student came to class and usually found herself/himself without a pen or book, 2 if often, 3 if seldom, and 4 if never. EXPECTATION, FEEL, and BOOK variables were recoded using the criterion method so that lengthy dummy variables were avoided. The locus of control was calculated from the six questions: (i) I don't have enough control over the direction my life is taking; (ii) In my life, good luck is more important than hard work for success; (iii) Every time I try to get ahead, something or somebody stops me; (iv) My plans hardly ever work out, so planning only makes me unhappy; (v) When I make plans, I am almost certain I can make them work; (vi) Chance and luck are very important for what happens in my life. The index of the locus of control variable was developed and provided by the NELS:88/00 data set. The remaining four independent variables are quantitative variables, representing the actual frequencies.

The dependent variable in this study is the status of high school degree attainment (DEGREE), with a value 0 if the student stayed out without obtaining any high school credentials and 1 if the youth returned and completed high school or received a GED certificate.

Results

Table 1 shows descriptive values and results of the logistic regression model. The mean value of the dependent variable (DEGREE) indicates the overall rate of degree attainment. The results show that the majority (67.4%) of dropouts eventually completed a high school education.

The Pearson correlation coefficients revealed significant correlations between degree attainment and many of educational engagement variables. Among seven predictors, student's educational aspiration (ASPIRATION) had the highest r with .191, followed by the organizational skills (BOOK), locus of control, homework, and TV watching. However, students' feelings and absences were not significantly associated with degree attainment ($p < .05$). All of the seven factors were significant with school completion for in-school youths (e.g., Suh et al., in

press). Thus, some of the engagement factors were temporary while others had long-lasting impacts on degree attainment.

Table 1
Descriptive Values and Logistic Regression Analysis on Degree Attainment among Dropouts

<i>Independent Variable</i>	<i>Mean</i>	<i>Std Deviation</i>	<i>Pearson Correlation</i>	β	<i>S.E.</i>	<i>Sig.</i>	<i>Exp(β)</i>
Degree	.674	.469	-				
Aspiration	.674	.0898	.191	3.127	.653	.000	22.814
Book	.674	.0898	.191	3.403	.636	.000	30.043
Locus	-72.36	73.159	.128	.002	.001	.002	1.003
Homework	5.25	4.828	.111	.038	.014	.005	1.039
TV Watch	3.244	2.244	-.070	-.052	.026	.048	.950
Feel	.674	.0317	.067	1.211	1.841	.511	3.358
Absence	4.05	1.893	-.036	-.008	.031	.800	.992
Constant	-	-	-	-4.263	1.336	.001	.014

Note: N=1430. Percent correctly predicted= 69.4%. -2 Log likelihood= 1697.375
Nagelkerke R²= 0.103

The logistic regression analysis confirms the strong effects of educational expectation, organization skills, locus of control, study habits, and time-use efficiency at 8th grade on degree attainment. As shown in the Pearson correlation, dropouts who have high educational expectations are more likely to obtain a high school degree. Dropouts who were very sure they would graduate high school at the 8th grade were 32.4% (= 22.814^{0.0898} - 1) more likely to attain a degree than dropouts who were very sure not to graduate. Also, the organizational skills (BOOK) relates to degree attainment significantly. One standard deviation increase in the organization skills enhances the likelihood of degree attainment by 35.7% (=30.043^{0.0898} - 1). The locus of control predicted significant differences between completers and non-completers. Though the regression coefficient (β) and the odds ratio (Exp(β)) were relatively small, a one standard deviation increase in the index (about 73 points increase in the index) raises the likelihood of completion by 24.4% (=1.003⁷³ - 1). Study habits and time-use efficiency (HOMEWORK and TV watch) were significantly associated with the likelihood of completing high school. If a student increases time spent on homework by one hour per week, the likelihood of obtaining a degree increases by 4.5% (=1.045¹ - 1). On the other hand, frequent TV watching during weekdays reduces dropouts' chance of earning a degree. The likelihood of degree attainment increases by 4.8%

($=0.952^{-1} - 1$) when TV watching is reduced by one hour per day. In terms of the standard deviation, a one standard deviation increase on homework increases the odds of school completion by 24.3%, while the odds fell by 10.4% for a one standard deviation increase in TV watching.

The remaining two predictors, FEEL and ABSENCE, were not significantly associated with the degree attainment. The entire regression model was found to be significant ($-2\log \text{likelihood}=1697.375$, $p < .01$, Nagelkerke $R^2 = .103$). The percentage of cases correctly predicted by the model was 69.4%.

Discussion and Implications

Most dropout studies posit that educational engagement is a significant factor in explaining the academic achievement gap between attainment of a degree and non-attainment while adolescents are enrolled in school. This research extended the existing context by applying the concept to a special group of adolescents - dropouts. The focus was to make a distinction between long-lasting engagement factors and short-lived temporary factors. As expected, school-related factors such as self-concept (FEEL) and attendance, which correlate highly with dropout rates before students dropped out of school and represent the most basic connection to school, were no longer significant once adolescents left school.

The three most prominent factors associated with degree attainment for dropout adolescents were academic aspiration, organizational skill, and locus of control. These factors were frequently referenced and emerged as the target variables across various dropout prevention programs (Grannis, 1994). An important finding from the current study is that student engagement in learning has a long-lasting impact on degree attainment even when the adolescent dropped out of school. The results of the current study also show that acquiring good study habits and spending less time on watching TV during weekdays while in school will significantly increase the likelihood of the degree attainment.

This study can be easily applied to teachers, administrators, and counselors involved in dropout prevention. First, practices that help adolescents develop emotional and aspirational engagement will promote healthy self-esteem while they are in school and increase the odds of degree attainment after they dropped out of school. Second, developing programs that foster organizational skills (e.g., bring pens and books to school regularly) would be useful to increase the student engagement level. Third, improving the structure and stability of the internal locus of control has a long-lasting impact on school completion. Fourth, school personnel should

work with parents to build up good study habits and time-use efficiency. Finally, in order to facilitate the dropouts' desire to complete high school education, an attempt should be made by communities and school systems to promote the dropouts' future educational plans.

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