

Creative Personality and Anticreative Environment for High School Dropouts

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The study examined the possible roles that creativity plays in students dropping out of high school. It used data from the National Educational Longitudinal Study (NELS: 88), the Educational Longitudinal Study (ELS: 2002), and 87 high school students from a low income area in southeastern Michigan. NELS and ELS questions related to creative personality and anticreative school environment were selected and asked of students. The students' responses were compared to their scores on measures of creativity (Runco Ideational Behavior Scale, Torrance Tests of Creative Thinking, & Scales for Rating the Behavioral Characteristics of Superior Students). The NELS respondents who showed creative personality were identified and examined whether their creativity related to dropping out. The results of logistic regression analyses indicated that the questions selected from NELS and ELS that showed anticreative school environment have a negative correlation with the scores on the creativity measures, which affect students' dropping out. An understanding of these students and their behavior will help promote creative students' academic and lifelong success through appropriate classroom restructuring.

CHARACTERISTICS OF DROPOUTS

The National Center for Education Statistics (NCES, 1993) reported that Caucasians account for 59% of dropouts, and that students from middle-income families account for 57% of dropouts. Further, the NCES (1994) found that the reasons for dropping out of school were more often school-related than job- or family-related, and that more boys than girls drop out of school due to expulsion and suspension. Thus, this study focused on the personality and school-related factors associated with dropping out. Beacham (1980) stated that lack of interest in school is one of the major reasons for dropping out. In addition, Barr and Knowles (1986) found that students who dropped out of school perceived schools as uninteresting and boring places that do not provide challenges.

CHARACTERISTICS OF GIFTED DROPOUTS

Although a great deal of research has focused on high school dropouts, few studies have focused on gifted or high-ability student dropouts (Robertson, 1991; Sadowski, 1987; Stephenson, 1985). Taylor and Ellison (1983) estimated that 100,000 creatively gifted students drop out of high school annually. Lajoie and Shore (1981) found that the dropout rate of the gifted population may be equivalent to the average dropout rate among the entire student population.

A few studies (Davis, 1984; Johnson, 1970; Vaughan, 1968) indicated that gifted dropouts show signs of maladjustment, problems with authority, nonconformity, hostility, suspiciousness, oversensitivity, and egotism, all of which are also potential indicators of a creative personality. In Sadowski's (1987) study, gifted high school dropouts show negative and rebellious attitudes toward school and authority, poor peer relationships, and poor social adjustment, all of which are also related to creative personality. Being creative tends to be related

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to a sense of release from inhibitions (Carson, Peterson, & Higgins, 2003), which is associated with finding and expressing oneself. Because creativity involves independence of mind, nonconformity to group pressures, or breaking out of the mold (Higgins, 1993; Torrance, 1962), highly creative students may experience problems of adjustment. Similarly, Taft and Gilchrist (1970) found that both creative productivity and creative attitudes are related to unconventionality, risk taking, impulsiveness, and subjection to emotional conflict. Further, Kelly and Veldman (1964) found that both delinquents and high school dropouts have lower impulse control than non-deviant or non-high school students. Deviant behaviors have a direct impact on high school dropout rate and are often expressed as disruptive school behaviors, which increase the risk of dropping out (Farmer & Payne, 1992; Gruskin, Campbell, & Paulu, 1987; Reyes, 1989). Studies (e.g., Christle, Jolivett, & Nelson, 2007; Suh, Suh, & Houston, 2007) have shown that suspension, which is considered to be symptomatic of deviant behavior, has a strong positive relationship with dropout rates. Janosz, Blanc, Boulerice & Tremblay (2000) reported that maladjusted dropouts, selected primarily because of their high level of school misbehavior, have the most negative school profile of all dropout types, largely due to both the variety and severity of difficulties experienced at school.

The research questions of this study were:

- What are the reasons for students' dropouts according to Educational Longitudinal Study (ELS)? Is there any reason that dropouts might be related to their creative personality or creative environments of their schools? Is there gender difference in percentages of and reasons to dropouts according to National Educational Longitudinal Study (NELS) and ELS?
- How are the four items from Kim's (2008a) associated with being creative from the NELS related to scores on the three measures of creativity (see the Instruments section)?
- What factors of students' characteristics related to creative personality increase or decrease the odds of dropping out among the NELS respondents who showed creative personality?
- What factors of students' activities or school environments related to creative environment on the ELS and NELS increase or decrease students' dropping out?

METHODS

Data and Procedures

There are three different sources of data sets for this study: Data sets from NELS, ELS, and newly recruited

group of 87 high school students were used. The procedures employed in the use of the data sets are as follows: First, reasons for students to have dropped out were examined using items from NELS (drop-outs between 1988 and 1992) and ELS (drop-outs between 2002 and 2004) to see whether there are other possible reasons for dropping out other than low academic achievement and financial issues and whether these reasons might be related to creative personality or the creative environment of their school. Second, items that are related to creative personality were selected from NELS 1988. Third, those items, as well as the two measures of creativity, were given to 87 high school students, and one measure of creativity was given to their teachers. Correlation coefficients were calculated between the items from NELS and the three measures of creativity to see whether those four items could be used as an indicator of creative personality. Fourth, using the indicator items, students in the NELS data were assigned a dichotomous creative personality score, and a binary logistic regression analysis was conducted to predict dropout on NELS between 1988 and 1992. Fifth, a binary logistic regression analysis was conducted to predict dropout on NELS between 1988 and 1992 using the NELS 1988 items that are related to students' activities and school environments. Last, a binary logistic regression analysis was conducted on ELS between 2002 and 2004 using the ELS 2002 items that are also related to students' activities and school environments to see whether the results are consistent with those from NELS. The descriptions of the data sets used in this study are as follows.

Data from NELS. NCES designed the NELS:88 and collected data on a nationally representative sample of students to evaluate the effects of demographic, academic, and school factors on student educational and behavioral outcomes. NCES is located within the US Department of Education and the Institute of Education Sciences and is the primary federal entity for collecting and analyzing data related to education in the United States and other nations (NCES, 2010). A sample of 24,599 eighth-graders were first surveyed in the spring of 1988 and then resurveyed through four follow-ups in 1990, 1992, 1994, and 2000. On the NELS questionnaire, students reported on topics including educational resources and support; school, work, and, home experiences; educational and occupational aspirations; and their perceptions on smoking, alcohol and drug use, and extracurricular activities. Additional topics included were reasons for dropping out of school, school experiences, and absenteeism (NCES, 2010).

Following Kim's (2008a) procedures, the composite scores of four questions from the NELS: 88 were used as indicators of creative personality. "It is okay to ask challenging questions;" and "It is okay to solve problems

using new ideas” were answered on a Likert scale of one to five (*strongly disagree* to *strongly agree*), one indicated the least creative and five the most. In addition, “Make up methods to solve science problem” and “Conduct own experiments in science” were also Likert scaled from one to five (*Never, yearly, monthly, weekly, daily*), one indicated the least creative and five the most.

A student was defined as *being creative* if the student responded either *agree* or *strongly agree* to the questions, “It is okay to ask challenging questions” and “It is okay to solve problems using new ideas,” and if the student responded with either *weekly* or *daily* to the questions, “Make up methods to solve science problem” and “Conduct own experiments in science.”

Data from ELS. The ELS: 2002 was designed to monitor the transitions of 10th graders in 2002 through college into their adult careers; to maintain comparability with other studies including NELS:88; to measure trends in transitions and outcomes over time; and to focus the second follow-up on issues of college access and choice (NCES, 2010). In the spring of 2002, a representative sample of 17,591 10th graders was surveyed, and follow-up data were collected in 2004.

Newly collected data. In addition to the NELS and ELS data, creativity scores from 87 high school students from a low-income area in southeastern Michigan were gathered and analyzed for this study. All of the participants were 10th graders; 43% of them were Hispanic and 57% of them were African American, and 54% of them were boys and 46% of them were girls. All of the 87 participants in this study took the Torrance Tests of Creative Thinking (TTCT)–Figural and Runco Ideational Behavior Scale (RIBS). In addition, they answered the four questions associated with creative personality from the NELS 1988. The students’ teachers provided information about each student by answering the Scales for Rating the Behavioral Characteristics of Superior Students–Revised edition (SRBCSS-R) questionnaire.

Instruments

Three measures of creative potential were used in this study: A standardized creativity test, the TTCT, a self-reported creativity test, the Runco Ideational Behavior Scale, and a teacher-reported creativity test, the Scales for Rating the Behavioral Characteristics of Superior Students–Revised Edition were administered to the students or their teachers, with each instrument taking approximately 30 min to administer.

The TTCT–Figural: Standardized creativity test. The TTCT was developed by Torrance in 1966 and has been

renormed five times: in 1974, 1984, 1990, 1998, and in 2008. The TTCT has been translated into over 35 languages, and it is the most widely used and referenced creativity test (see Kim, 2006 for further information). Kim (2008b) found that scores on the TTCT predict creative achievement better than other measures of creativity or divergent thinking, that it is more than a divergent-thinking test, and is a test of creativity (Kim, in press, ab).

RIBS: Self-reported creativity test. The RIBS is based on the belief that ideas can be treated as the products of original, divergent, and creative thinking. The RIBS has a strong, well-documented development history; administrations have consistently produced reliable scores; and is widely viewed as a useful instrument to measure, and make valid inferences about creative thinking (Plucker, Runco, & Lim, 2006; Runco, Plucker, & Lim, 2001). Each item describes behavior that reflects the individual’s use of, appreciation of, and skill with ideas.

SRBCSS-R: Teacher-reported creativity test. The SRBCSS has been used mostly for identifying gifted students and for assessing interventions (Renzulli et al., 2002). The SRBCSS is designed to measure 10 areas of characteristics. The 10 subscales remain separate, there is no composite score, and specific scales may be used independently (Renzulli et al., 2002). For this study, only the Creativity Characteristics subscale was used. It includes nine items with a six-point Likert scale (from 0 to 5, with 0 = *never*, and 5 = *always*).

RESULTS

Percentage of Dropouts and Reasons to Dropouts by Gender

As Table 1 shows, boys accounted for 51.7% of the students who dropped out in both the NELS and ELS datasets. Girls accounted for 37.5% in NELS: 88 data and 47.8% in the ELS:2002 data. Overall, the percentage of the dropout population accounted for by each gender is similar in both datasets; given 10.8% was non-response rate for NELS.

As Table 2 shows, for female students, being pregnant, having a baby, or getting married were reasons to dropout for more girls than for boys. Additionally, feeling not safe in school is also a reason to dropout for more girls than boys. On the contrary, not liking school, low academic achievement, financial/support issues, easy-to-get GED, having missed too many school days, and being suspended or expelled were more prevalent for

TABLE 1

Gender Differences in Dropout Percentages out of Dropouts and out of Total Students on Educational Longitudinal Study (ELS) and National Educational Longitudinal Study (NELS)

Gender	%/ <i>Dropouts</i>		%/ <i>Total Students</i>	
	ELS	NELS	ELS	NELS
Boys	51.7	51.7	6.5	4.8
Girls	47.8	37.5	6.0	3.5
No response	.5	10.8	.06	1.0
Total	100	100	12.5	9.3

boys than for girls. There are 9.3% students who dropped out of high school. The percentage of dropout by reason showed that 11.8% students dropped out of high school due to low academic achievement, and that 8% students dropped out of high school due to financial or support issues. More important, 15% of those students responded that they dropped out because they did not like school, teachers, students, and the like. Further, 7.2% of the students who dropped out of high school still believed that their dropping out was a good decision. Not liking school or thinking that dropping out was a good decision might suggest that there needs to be further investigation of the reasons for dropping out.

The Four Items on NELS as Creativity Composite Scores

The correlation coefficients between the four items from NELS and the three measures of creative potential among the 87 participants were examined to see whether the four items could be used as indicators of creative personality for this study. As Table 3 shows, the correlation coefficients between the total scores of the four items from NELS and the total score of each of the three measures of creativity were significant: the correlation coefficients with RIBS, $r = .44$ ($p < .01$), with TTCT, $r = .39$ ($p < .01$), and with SRBCSS-R, $r = .25$ ($p < .05$), were statistically significant. These findings indicate that the

TABLE 2

Percentage of Dropout by Reason and Gender on Educational Longitudinal Study (ELS) 2002 ($N = 317619$)

Dropout Reason	% of Dropout Total	% of Agreement		No Response
		Male	Female	
Not liking school	15.0	50.2	39.3	10.6
Low academic achievement	11.8	55.6	35.9	8.5
Financial/support issues	8.0	59.7	32.9	7.4
Easy-to-get GED	7.0	58.8	30.3	10.9
Missed too many school days	5.1	52.2	35.6	12.1
Suspended or expelled	3.1	49.5	38.80	11.7
Pregnant, baby, married	3.0	32.2	59.0	8.8
Not safe	1.1	13.3	73.2	13.5
Dropout was a good decision	7.2	53.4	35.2	11.4

TABLE 3

Correlation Coefficients between the Creativity Composite Scores and the Runco Ideational Behavior Scale (RIBS), the Torrance Tests of Creative Thinking—Figural (TTCT), and the Scales for Rating the Behavioral Characteristics of Superior Students—Revised Edition (SRBCSS-R)

	Creative	RIBS	SRBCSS-R
RIBS	.44**	—	—
SRBCSS-R	.25*	.36*	—
TTCT	.39**	.27*	.47**

* $p < .05$. ** $p < .01$.

NELS items could act as adequate indicators of creative personality, being creative.

Students' Personality Factors That Increase/Decrease Dropouts

As Table 4 shows, the results from the binary logistic regression predicting dropout on NELS ($N = 2,347,236$) showed that every unit increase in being creative was associated with a 62% increase in the odds of dropout; “Okay to disobey school rules” was associated with a 30% increase in the odds of dropout; and “Being put down by teachers” was associated with a 28% increase in the odds of dropout. As Table 5 shows, analysis of the ELS ($N = 3,403,321$) data showed that perseverance, a characteristic often associated with creative personalities, decreased the odds of dropping out—“Keeps studying even if material is difficult,” 24%.

TABLE 4

Items from the Educational Longitudinal Study (ELS)/National Educational Longitudinal Study (NELS) That Increase Dropout Odds

Indicators	ELS/NELS Item	Increased Dropout	
		Odds Ratio	% Increase
Person	Being creative	1.62	62%
	NELS: Okay to disobey school rules	1.30	30%
	Being put down by teachers	1.28	28%
Press	NELS: PI vocational education club	2.43	143%
	PI cheerleading	1.55	55%
	How often drives or rides around	1.38	38%
	PI ScPI school hobby clubs	1.24	24%
	How often does respondent work on hobbies	1.22	22%
	ELS: PI job shadowing/work-site visits	1.58	58%
	PI these work-based learning experiences	1.52	52%
	How often drives or rides around	1.30	30%
	PI school-based enterprise	1.21	21%
	PI intramural cheerleading/drill team	1.21	21%

Note. PI = Participated In.

TABLE 5
Items From the Educational Longitudinal Study (ELS)/National Educational Longitudinal Study (NELS) That Decrease Dropout Odds

<i>Indicators</i>		<i>Decreased Dropout</i>	
		<i>Odds Ratio</i>	<i>% Decrease</i>
<i>4 Ps</i>	<i>ELS/NELS Item</i>		
Person			
ELS:	Keeps studying even if material is difficult	0.76	24%
Press			
NELS:	PI academic honors society	0.36	64%
	PI band or orchestra	0.60	40%
	PI religious organization	0.61	39%
	PI student council	0.63	37%
	PI school government	0.64	36%
	PI School yearbook, newspaper	0.68	32%
	PI religious youth groups	0.70	30%
	PI school music group	0.72	28%
	Time spent on extracurricular activities	0.79	21%
ELS:	PI academic honors society	0.33	67%
	PI school service clubs	0.42	58%
	PI school band or chorus	0.45	55%
	PI student government	0.49	51%
	PI school academic clubs	0.54	46%
	PI community service	0.57	43%
	How often volunteers or performs community service	0.79	21%

Note. Participated In.

School Environment/Students' Extra-Curricular Activities That Increase/Decrease Dropouts

As Table 4 shows, the results from the binary logistic regression predicting dropout on NELS showed that every unit increase in "Participated in vocational education club" was associated with a 143% increase in the odds of dropout. Additionally, the results on ELS showed that every unit increase in "Participated in job shadowing/work-site visits" was associated with a 58% increase in the odds of dropout; "Participated in work-based learning experiences" was associated with a 52% increase in the odds of dropout; and "Participated in school-based enterprise" was associated with a 21% increase in the odds of dropout. Further, the NELS data showed that, "Participated in school hobby clubs" (24%) and "How often does respondent work on hobbies" (22%) also increase the odds of dropping out. Both datasets agreed that there are increased odds of dropping out associated with cheerleading—NELS, "Participated in cheerleading" (55%) and ELS, "Participate in intramural cheerleading/drill team" (21%)—and "How often drives or rides around"—NELS 38% and ELS 30%.

As Table 5 shows, the results showed that "Participation in academic honors society"—NELS (64%) and ELS (67%)—was associated with a decrease in the odds

of dropping out and "Participated in school academic clubs" (ELS) was associated with a 46% decrease in the odds of dropping out. In addition to these academically oriented organizations, NELS data revealed that "Participation in religious organization" (39%) and "Participation in religious youth groups" (30%) were associated with significantly decreased odds of dropping out. Similarly, ELS data revealed that "Participated in school service clubs" (58%), "Participated in community service" (43%), and "How often volunteers or performs community service" (21%) were associated with significantly decreased odds of dropping out. Additionally, the NELS data indicated that, "Participated in band or orchestra" (40%) and "Participated in school music group" (28%) were associated with significantly decreased odds of dropping out. Similarly, ELS data indicated that, "Participated in school band or chorus" (55%) was associated with significantly decreased odds of dropping out. Further, analysis of the NELS data indicated that, "Participates in student council" (37%) and "Participates in school yearbook, newspaper" (32%) were associated with significantly decreased odds of dropping out; and both NELS and ELS concur that, "Participated in student government"—NELS (36%) and ELS (51%)—was associated with significantly decreased odds of dropping out. Overall, the NELS data indicated that, "Time spent on extracurricular activities" (21%) was associated with significantly decreased odds of dropping out.

DISCUSSION

The results indicate female students drop out of high school as much as male students do, and many of those who dropped out of high school still believe dropping out was a good decision. This may suggest there are some unknown reasons for dropping out. Results also indicate that more students drop out of school because they do not like schools, rather than because they are academically low-achieving or have financial or support issues. This may be related to Pittman (1986) and Tidwell's (1988) studies indicating resistance and resentment toward school community are a major variable in the decision to drop out. This suggests that some students may not fit well within the school system because of conflicts between their personalities and the school environment. Further, this suggests that, for some of these students, this conflict arises from their personality characteristics.

The statistically significant correlation coefficients between the NELS creativity composite scores and the three measures of creative potential indicate these creativity composite scores can be indicators of being creative. Results indicate that being creative increases the odds of dropping out. Of course, not all highly creative students drop out; however, a student's personality plays

an important role in the interaction between creativity and the environment. Creativity has been associated with both the highly extroverted (Buchanan & Bandy, 1984; Buchanan & Taylor, 1986; Carne & Kirton, 1982; Hammond & Edelmann, 1991; Ohnmacht, 1970) and the highly introverted (Feist, 1999; Kundu, 1987; Roy, 1996), and with being extroverted and introverted at the same time (Eysenck, 1995). Additionally, extroverted and introverted behavior is mediated by environmental conditions (i.e., a student may be extroverted at home and display introverted behaviors at school, and vice versa). Creative students who display extreme levels of extroversion or introversion may have difficulty conforming or fitting into the school environment, leading to behavior problems or a general dislike of school. Results indicating that some students' creativity is related to dropping out of high school are consistent with previous studies, in that personality has been shown to play a role in how students attempt to control the interactions between their creativity and the environment. Kim and VanTassel-Baska (2010) indicated that both underachieving and overachieving students have higher creative potential than other students. Torrance (1964) and Reis and Renzulli (1982) indicated that creativity can contribute to a student's high achievement, even with low IQ, whereas Kim and VanTassel-Baska indicated that high creativity of underachieving students might cause or contribute to underachievement, as well. Therefore, creativity can be a gift as well as a curse for some students in traditional school environment, where it can lead to underachievement and even dropping out of school.

The increase of the odds of dropout when students think that it is "Okay to disobey school rules" and when they feel that they are "Being put down by teachers" might also be related to a creative students' personality. Sadowski (1987) found that gifted high school dropouts have a negative and rebellious attitude toward school and authority. Additionally, perseverance, a characteristic often associated with creative personalities, decreased the odds of dropping out. This might indicate that perseverance is one of the characteristics that environmental conditions seldom censor.

For factors that increase the odds of the dropping out, the results indicate high school students' participation in any form of early job experience increases the odds of the dropping out. Thus, a school committed to reducing dropout rates should plan programs and curricula that provide less exposure and focus on actual job experiences, and emphasize the importance of graduating before joining the work force. The correlation between dropout rates and students who spent significant time on their hobbies suggests that hobbies serve as a refuge for creative individuals who may otherwise feel confined by their environments. However, when indulgence in hobbies becomes excessive, it can detract from academic

focus and decrease interest in school. The correlation between dropout rates and students who participated in cheerleading or intramural cheerleading/drill team suggests that school-sponsored, organized, extracurricular activities can inadvertently contribute to a decision to drop out. However, involvement in cheerleading may be also related to other characteristics or behaviors that may lead to dropping out, because involvement in other school-based athletic groups correlates with staying in school. On the other hand, students need activities with organizational structure if they are to stay in school, as evidenced by the high dropout rates among students who spend a lot of time driving or riding around without specific destinations.

For factors that decrease the odds of the dropping out, results indicate that students' participation in clubs directly related to academics may help students to stay focused on academics. Dropout rates decrease among students who participate in religious and service activities. This might indicate that the activities associated with participation in these organizations, groups, and clubs, as well as the activity of providing a service to others, are good outlets for creative energy. The decrease in the odds of dropout when students participate in musical clubs might indicate that these activities are good outlet for creative energy and expression. The decrease in the odds of dropout when students participate in activities and organizations directly related to the leadership roles or structural functions of the school environment might indicate personal investment in the school environment results in a sense of belonging, engagement, and responsibility. Finally, the decrease in the odds of dropout associated with more time spent on extracurricular activities indicates involvement in a variety of activities may help students stay enrolled. Investing a reasonable amount of time in any worthwhile school related activity may serve as a creative release and result in a sense of engagement and belonging for students.

In conclusion, the results indicate that students' creative personality may relate to a decision to drop out of high school. Students are less inclined to drop out when they engage in school- or community-based group activities where they can express creative energy. Clubs or organizations related to academic, religious and service activities, musical activities, and engagement in leadership roles that influence school environment are all related to a decrease in the odds of dropping out.

Students need organized, structured, school-based activities to remain engaged and invested in the school experience. Students who spend more time engaging in activities without specific purposes or specific responsibilities tend to drop out of school. However, engaging in activities related to any form of early job experience tends to encourage high school students to drop out. Students seek risks and challenges, and students who

experience income and workplace expectations are more willing to try to take on those responsibilities and to cast aside their childhoods and their schools. To keep creative students enrolled, we need to keep them engaged, by focusing their time and energy into group activities based on academics (even religious activities outside of school) or school- (even athletic) related performance, so these children continue to be vested as performing members in their school environments and in learning.

Implication

Studies (e.g., Choi, 2004; Heck, 1978; Misra, 1987; Niu, 2007; Tsai, 1985) have shown that environments, including school environment, stimulate individuals' creative potential, when those environments stress independence, flexibility, and self-exploration. Environments can be more important than individuals' characteristics in influencing creativity, at least for certain cultural contexts, including the Chinese culture (Niu, 2007). A nonthreatening environment makes diverse ideas and competing viewpoints acceptable and allows for explorations of alternative approaches (Anderson & West, 1998). Direct or indirect attempts to restrict freedom or induce uncritical obedience from individuals stifles creativity, and thus, environments that protect and nurture individuals' sense of autonomy should be created, and conformity should be discouraged (Niu, 2007). Repressive, anticreative school environments can encourage students to react with maladaptive behaviors, including underachievement and dropping out of school. To discourage underachievement and dropping out, schools need to offer extracurricular activities to promote outlets for creative energy. Students' creative out-of-school activities are significantly positively related to later achievements in their young adulthood (Milgram & Hong, 1999). Students should engage in clubs or organizations related to academics, religious and service activities, musical activities, and leadership roles where they can influence the school environment, which would result in increased connections to the school and lower dropout rates.

In addition, Croninger and Lee (2001) reported that teachers are an important source of social capital for students, and that teacher-based forms of social capital reduce the probability of dropping out by half. Similarly, Christle and colleagues (2007) found that teachers are the most frequently encountered role models outside of the family, and teacher behavior and characteristics have a great deal of influence on student outcomes. Thus, an understanding of the interaction between student creativity and school environment helps promote students' academic and lifelong success through appropriate classroom, and policy, restructuring.

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