

# Motivational Correlates of Academic Achievement Among At-Risk Youth

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## Background & Theoretical Framework

- “At-risk” students, including those who attend alternative schools, struggle with psychosocial, behavioral, and/or academic adjustment, which places them at a high risk of dropping out of school (Dotterer & Lowe, 2011; Zweig, 2003).
- According to self-determination theory (SDT), meeting the fundamental needs for competence, autonomy, and relatedness is essential for fostering students’ intrinsic motivation (Deci & Ryan, 2002).
- Few studies have examined the relationship between SDT variables and academic performance among students who attend alternative schools.

## Purpose of the Study



To investigate the relationship between

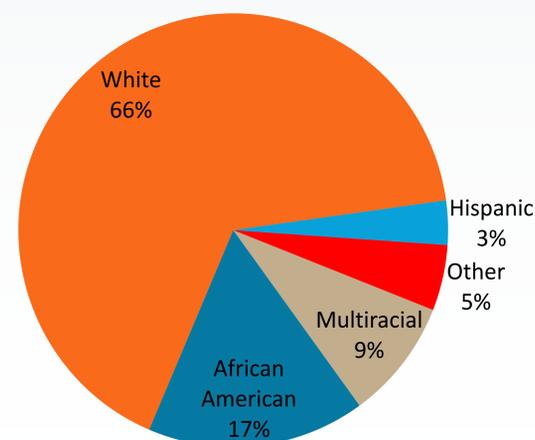
- perceptions of academic competence (self-efficacy),
- school belonging,
- perceived autonomy support, and
- academic achievement

among adolescents attending an alternative secondary school.

## Participants

Students from Grades 7 to 12 attending an alternative secondary school in Southern Eastern U.S. ( $N = 122$ ; 35.2% girls, 64.8% boys;  $M_{age} = 16.7$ ) participated in the study.

### Ethnicity



## Measures

- **Academic self-efficacy and self-regulatory self-efficacy**, a proxy for **perceived academic competence**, were measured using a 6-item academic self-efficacy scale (“In general, how confident are you in your abilities in math?”;  $\alpha = .72$ ) and 10-item self-regulatory self-efficacy scale (“How well can you concentrate on your school work?”; Bandura, 2006;  $\alpha = .90$ )
- **Belongingness** was measured using the 14-item Psychological Sense of School Membership Scale (“I feel like a part of my school.”; Goodenow, 1993;  $\alpha = .92$ )
- **Autonomy support** was measured using the 15-item perceived autonomy-supportive climate scale (“I feel understood by my instructor.”) from Learning Climate Questionnaire (Black & Deci, 2000;  $\alpha = .90$ )
- **Academic performance** was measured using end-of-semester grade point of average (GPA). Students’ GPA ranged from 0.25 to 4.

## Research Questions & Analyses

- RQ1: What was the relationship among all the study variables?
  - Pearson’s correlation
- RQ2: Did SDT variables predict end-of-semester GPA?
  - Multiple linear regression

## Results

- All SDT variables were significantly, positively correlated with each other.
- GPA was significantly correlated with sense of belonging and autonomy support but not with academic self-efficacy and self-regulatory self-efficacy.
- SDT variables collectively, but modestly, predicted students’ GPA,  $R^2 = .089$ ,  $p < .05$ .
- Perceived autonomy support was the only significant predictor of GPA.

Table 1  
Means, Standard Deviations, and Zero-Order Correlations for GPA, Academic Self-Efficacy, Self-Regulatory Self-Efficacy, Sense of School Belonging, and Autonomy Support

	M	SD	1	2	3	4	5
1. GPA	2.92	.80					
2. Academic SE	4.31	.90	.02				
3. Self-Regulatory SE	3.82	1.14	.09	.69**			
4. School belonging	4.55	.90	.22*	.46**	.40**		
5. Autonomy support	4.48	1.10	.26**	.44**	.47**	.64**	
6. Gender	-	-	.08	.07	.14	.12	.08

Note. SE = Self-Efficacy. Mean scores for all variables range from 1(low) to 6 (high).  
\* $p < .05$ . \*\* $p < .01$ .

Table 2  
Multiple Regression Analysis for Variables Predicting Academic Achievement ( $N = 122$ )

Variable	B
Academic Self-Efficacy	.116
Self-regulatory Self-Efficacy	.100
Belongingness	.110
Autonomy Support	.097*
$R^2$	.089*

Note. \* $p < .05$ .

## Discussions & Implications

- Perceived autonomy support was the only significant predictor of GPA, suggesting that students who feel a greater sense of autonomy support perform better at school.
- Research has consistently shown that in traditional school settings, perceived competence is positively related to achievement (Klassen & Usher, 2010); however, our findings suggest that at-risk students may show a different motivational profile.
- Alternative schools that can offer learning environments that are supportive of students’ sense of autonomy might facilitate students’ academic performance.



## References

- Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents*, 5, 307-337. Greenwich, CT: Information Age Publishing.
- Black, A. E., & Deci, E. L. (2000). The effects of instructors’ autonomy support and students’ autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education*, 84, 740-756. doi:10.1002/1098-237X(200011)84:6<740::AID-SCE4>3.0.CO;2-3
- Dotterer, A. M., & Lowe, K. (2011). Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth and Adolescence*, 40(12), 1649-1660. doi: 10.1007/s10964-011-9647-5
- Klassen, R. M., & Usher, E. L. (2010). Self-efficacy in educational settings: Recent research and emerging directions. In T. C. Urdan & S. A. Karabenick (Eds.), *Advances in motivation and achievement: Vol. 16A. The decade ahead: Theoretical perspectives on motivation and achievement* (pp. 1-33). Bingley, United Kingdom: Emerald Publishing Group.
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30(1), 79-90. doi: 10.1002/1520-6807
- Deci, E. L., & Ryan, R. M. (2002). Overview of self-determination theory: An organismic-dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-33). Rochester, NY, US: University of Rochester Press.
- Van Rynin, M. J., Gravelly, A. A., & Roseth, C. J. (2009). Autonomy, belongingness, and engagement in school as contributors to adolescent psychological well-being. *Journal of Youth and Adolescence*, 38(1), 1-12. doi: 10.1007/s10964-007-9257-4
- Zweig, J. M. (2003). *Vulnerable youth: Identifying their need for alternative educational settings*. Washington DC: Urban Institute. Retrieved from Eric website: <http://files.eric.ed.gov/fulltext/ED480751.pdf>

