

Gender-Mediated Conditions of Student Aspirations as Reported by Rural and Town Appalachian Early Adolescents

Appalachia Wired: Webs of Diversity

Nancy M. Wilson, EdD
nwilson@marshall.edu

Robert A. Wilson, PhD
rwilson@marshall.edu

Stephen L. O'Keefe, PhD
sokeefe@marshall.edu

Kimberly S. Cowley, MA
cowleyk@ael.org

Author Biographies:

Nancy M. Wilson EdD

Professor of Elementary and Secondary Education, Marshall University Graduate College, Marshall University. Dr. Wilson has taught math at the high school and college levels and currently teaches educational research and middle school mathematics education.

Robert A. Wilson, PhD

Professor of Psychology and Industrial Relations, Marshall University Graduate College, Marshall University. Dr. Wilson teaches advanced behavioral statistics and is a licensed psychologist.

Stephen L. O'Keefe, PhD

Professor of Psychology, Marshall University Graduate College, Marshall University. Dr. O'Keefe teaches advanced psychology and school psychology courses, and is a licensed clinical psychologist and a licensed and certified school psychologist.

Kimberly S. Cowley, MA

Research and Evaluation Specialist in the Evaluation Unit of AEL. Ms. Cowley is responsible for conceptualizing and conducting applied research and evaluation projects and has authored more than 35 technical reports and papers.

Gender-Mediated Conditions of Student Aspirations as Reported by Rural and Town Appalachian Early Adolescents

This factor analytic study of student aspirations in Appalachian early adolescents was derived from 3,240 seventh grade students involved in two West Virginia GEAR UP projects in 2001. Analyses were conducted on a survey created by AEL based, in part, on conditions the University of Maine had identified as supporting high aspirations in youth.¹ These conditions are belonging, heroes, sense of accomplishment, fun and excitement, spirit of adventure, curiosity and creativity, leadership and responsibility, and confidence to take action.

A review of research on student aspirations indicated four variables that influence those aspirations: gender, culture, SES, and race.² However these variables either cannot be altered or defy manipulation. Therefore the authors have been studying the conditions, identified by the University of Maine, which can be created to support aspirations.

For a perspective into how these variables, gender, culture, SES and race, may influence aspirations, the authors had conducted a factor analytic study on the conditions that encourage student aspirations in which culture, SES, and race were held constant. For the purposes of this study, culture was defined by the Johnson code of the school the participants attended. Only white, rural students with similar SES levels were studied (n = 2,315). The results showed an empirical difference by gender in the importance rural boys and girls attached to the conditions that support student aspirations. The present study is a first look at the differences that boys and girls from towns (n = 925) attach to the importance of these conditions. To allow for comparison between studies, race and SES were held constant. Rural culture was defined as that which is found in a school of Johnson code 7. Town culture was reflected in schools with a Johnson code of 5 or 6.³

¹University of Maine. (1999). *Students speak: My education and my future: Preliminary report for State of Maine (grades 6-8)*. Orono, ME: College of Education and Human Development, Center for Research and Evaluation.

²Mau, W. (1995). Educational planning and academic achievement of middle school students: A racial and cultural comparison. *Journal of Counseling and Development*, 73, 518-526.

Wahl, K. H., & Blackhurst, A. (2000). Factors affecting the occupational and educational aspirations of children and adolescents. *Professional School Counseling*, 3(5), 367-374.

³ Snyder, T. D., & Hoffman, C. M. (2002). *Digest of educational statistics 2001*. Chapter 3, Table 317. Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education. Retrieved April 2002 from <http://www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002130>.

There appear to be four conditions which contribute to student aspirations. These four conditions are supported by the most efficient and effective factor analytic solution from analyzing the reports of seventh grade girls and boys from rural and town schools. These four factors have been labeled Teacher-Centric, Leadership, Self-Efficacy, and Like School. Initial results indicate that culture makes a difference in the students' perception of the importance of the factors associated with conditions of student aspirations. These differences are not consistent across gender, suggesting that there is an interplay between gender and culture regarding the value that students place on these conditions.

As in the first study, the factors were: Self-Efficacy, Teacher-Centric, Leadership, and Like School. These factors persisted across gender and culture for white Appalachian seventh graders.

- The Teacher-Centric factor includes items about the teacher's attitude toward the student and the student's belief about how supportive the teacher is of the student. Therefore, the Teacher-Centric condition is conceptually defined as the respect, support, and encouragement given by the teacher to the student. This condition includes items from the belonging and heroes conditions reported by University of Maine (1999). This condition appears to be externally derived and based in the school environment.
- Leadership includes items about the beliefs that the students have about their own ability to be a role model for other students, be dependable, and be influential in student groups. Thus, this is an internally guided system which may have early origins in the environment, but at this point has been fully incorporated by the individual. This condition has some similarity to the leadership and responsibility condition, heroes condition and spirit of adventure condition in the literature (University of Maine, 1999).
- Self-Efficacy includes items about the students' ability to impact their own lives and the empowerment which they experience from the environment. This condition, like Leadership, is internally guided. There are similarities to the confidence to take action and sense of accomplishment conditions in the literature (University of Maine, 1999).
- The Like School factor contains items referring to the students' attitudes toward teachers and learning. Like Teacher-Centric, its focus appears to be external. The items for this condition appeared in the fun and excitement condition in the literature (University of Maine, 1999) but for some groups of students also includes items from heroes, curiosity and creativity, and belonging.

The importance of those factors as perceived by rural boys, rural girls, town boys, and town girls differed noticeably. Implications for increasing student aspirations are that one must consider the gender and community of the audience so that the interventions target the conditions that are more salient for the population. These results suggest that the mix of interventions should be tailored to gender and culture, particularly as related to the factors labeled Self-

Efficacy and Teacher-Centric. Further inquiry may be warranted into the overvaluing of teacher opinion by white, rural girls and the undervaluing of leadership by white, town boys. The effect of teacher behavior on all groups also merits further attention.

Summary

The following table indicates the order of factors of aspirations for seventh-grade white Appalachian students, separated by gender and culture.

Factors of Conditions which Support Student Aspirations				
	White, Town Boys	White, Rural Boys	White, Town Girls	White, Rural Girls
Rank	Factor	Factor	Factor	Factor
1	Teacher-Centric	Self-Efficacy	Self-Efficacy	Teacher-Centric
2	Self-Efficacy	Teacher-Centric	Teacher-Centric	Leadership
3	Like School	Leadership	Leadership	Like School
4	Leadership	Like School	Like School	Self-Efficacy

The four conditions of this study are not only supported by the factor analysis, but appear to be a more parsimonious representation of the conditions that influence aspirations than those articulated by the University of Maine (1999). In fact, the four conditions appear to be conceptually related to internal and external orientations. Using this system, interventions could be focused on four content areas with differential weighting of the importance of the area depending on the gender and culture of the students. Perhaps focused intervention will result in greater changes in aspirations than broad-based and universal interventions.

Suggested Questions to Guide the Discussion:

- 1) Given the finding: when compared to other seventh grade students, rural seventh grade girls appear to overvalue teacher comments about educational aspirations and devalue their own power to effect educational choice; what implications do you see for affecting their aspirations? NB: Rural girls placed the factors of Teacher-Centric first and Self-Efficacy last.

- 2) What qualitative data can be used to generate hypotheses on why the phenomenon in #1 occurs?

- 3) What environmental factors may be influencing or impacting rural boys and town girls in ways that lead to their congruous viewpoints related to aspirations?

- 4) When compared to other seventh graders, why do town boys undervalue the Leadership factor as a condition of aspirations?

- 5) Given that teachers have such a powerful influence over the conditions of aspirations, what should teachers say and do to explicitly increase student aspirations?

- 6) How are the conditions of aspirations differentially mediated by gender and culture (as defined by rural versus town environments)?

Self-Efficacy				
	Town Boys 12.47%	Rural Boys 13.69%	Town Girls 16.86%	Rural Girls 10.61%
Condition	Question	Question	Question	Question
Confidence to Take Action	Anyone can succeed if they work hard enough.	Anyone can succeed if they work hard enough.	Anyone can succeed if they work hard enough.	Anyone can succeed if they work hard enough.
Sense of Accomplishment	I believe I can always improve.	I believe I can always improve.	I believe I can always improve.	I believe I can always improve.
Sense of Accomplishment	I put forth the necessary effort to reach a goal.	I put forth the necessary effort to reach a goal.	I put forth the necessary effort to reach a goal.	I put forth the necessary effort to reach a goal.
Confidence to Take Action	I am confident in my ability to do well.	I am confident in my ability to do well.	I am confident in my ability to do well.	I am confident in my ability to do well.
Spirit of Adventure	I am eager to learn new things.	I am eager to try new things.	I am eager to try new things.	
Spirit of Adventure		I have opportunities to decide for myself what I learn about in school.	I have opportunities to decide for myself what I learn about in school.	
Leadership and Responsibility		I accept responsibility for my actions.	I accept responsibility for my actions.	I accept responsibility for my actions.
Leadership and Responsibility		Teachers expect me to be a good decision maker.		
Curiosity and Creativity	My courses help me understand what is happening in my everyday life.	My courses help me understand what is happening in my everyday life.		
Confidence to Take Action	I take action on the causes I believe in.		I take action on the causes I believe in.	I take action on the causes I believe in.
Sense of Accomplishment			Teachers tell me I do a good job when I try my best.	
Curiosity and Creativity			Teachers encourage me to ask questions.	
Belonging			I am proud of my school.	

Teacher-Centric				
	Town Boys 15.73%	Rural Boys 13.67%	Town Girls 14.14%	Rural Girls 14.33%
Condition	Question	Question	Question	Question
Belonging	Teachers respect my thoughts.	Teachers respect my thoughts.	Teachers respect my thoughts.	Teachers respect my thoughts.
Belonging	Teachers care about my problems and feelings.	Teachers care about my problems and feelings.	Teachers care about my problems and feelings.	Teachers care about my problems and feelings.
Sense of Accomplishment	Teachers care about my success in class.	Teachers care about my success in class.	Teachers care about my success in class.	Teachers care about my success in class.
Belonging	Teachers value my opinions.	Teachers value my opinions.	Teachers value my opinions.	Teachers value my opinions.
Heroes	Teachers help me to succeed.	Teachers help me to succeed.	Teachers help me to succeed.	Teachers help me to succeed.
Heroes	Teachers expect me to succeed.	Teachers expect me to succeed.	Teachers expect me to succeed.	Teachers expect me to succeed.
Spirit of Adventure	Teachers support me when I try something new.	Teachers support me when I try something new.	Teachers support me when I try something new.	Teachers support me when I try something new.
Sense of Accomplishment	Teachers tell me I do a good job when I try my best.	Teachers tell me I do a good job when I try my best.		Teachers tell me I do a good job when I try my best.
Curiosity and Creativity	Teachers encourage me to ask questions.	Teachers encourage me to ask questions.		Teachers encourage me to ask questions.
Curiosity and Creativity	Teachers allow me to explore topics I find interesting.			
Leadership and Responsibility			Teachers expect me to be a good decision maker.	

Leadership				
	Town Boys 10.68	Rural Boys 12.63%	Town Girls 13.28%	Rural Girls 11.83%
Condition	Question	Question	Question	Question
Leadership and Responsibility	I am a good leader.	I am a good leader.	I am a good leader.	I am a good leader.
Leadership and Responsibility	I can take control of situations.	I can take control of situations.	I can take control of situations.	I can take control of situations.
Spirit of Adventure	I know what I want and I go after it.	I know what I want and I go after it.	I know what I want and I go after it.	I know what I want and I go after it.
Curiosity and Creativity	I seek solutions to complex problems.	I seek solutions to complex problems.	I seek solutions to complex problems.	I seek solutions to complex problems.
Spirit of Adventure	I can select the best way to solve a problem.	I can select the best way to solve a problem.	I can select the best way to solve a problem.	I can select the best way to solve a problem.
Leadership and Responsibility	I do what I say I will.	I do what I say I will.	I do what I say I will.	I do what I say I will.
Heroes	I am a positive role model to other students.	I am a positive role model to other students.	I am a positive role model to other students.	I am a positive role model to other students.
Heroes	I have a strong caring relationship with an adult.	I have a strong caring relationship with an adult.		I have a strong caring relationship with an adult.
Confidence to Take Action		I take action on causes I believe in.		

Like School				
	Town Boys 12.32%	Rural Boys 9.89%	Town Girls 9.21%	Rural Girls 11.81%
Condition	Question	Question	Question	Question
Fun and Excitement	I am not usually bored in school.	I am not usually bored in school.	I am not usually bored in school.	I am not usually bored in school.
Fun and Excitement	Teachers make learning exciting.	Teachers make learning exciting.	Teachers make learning exciting.	Teachers make learning exciting.
Fun and Excitement	I usually have fun in class.	I usually have fun in class.	I usually have fun in class.	I usually have fun in class.
Heroes		I have a teacher who is a positive role model for me.	I have a teacher who is a positive role model for me.	I have a teacher who is a positive role model for me.
Curiosity and Creativity		Teachers allow me to explore topics I find interesting.	Teachers allow me to explore topics I find interesting.	Teachers allow me to explore topics I find interesting.
Belonging	I am proud of my school.	I am proud of my school.		I am proud of my school.
Spirit of Adventure	I have opportunities to decide for myself what I learn about in school.			I have opportunities to decide for myself what I learn about in school.
Curiosity and Creativity			My courses help me understand what is happening in my everyday life.	
Leadership and Responsibility	Teachers expect me to be a good decision-maker.			
Spirit of Adventure				I am eager to learn new things.