

Students' Perceptions of Classroom Activities: Are There Grade-Level and Gender Differences?

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The authors investigated whether differences existed in perceptions of class activities for students in Grades 3–8 and between genders. Specifically, the frequency that students perceived opportunities for interest, challenge, choice, and enjoyment in their classrooms was assessed using the affective instrument, *My Class Activities* (M. Gentry & R. K. Gable, 2001). Significant main effects existed for grade level and gender, with no interaction of the 2 variables. In general, middle school students found their classroom activities less frequently interesting and enjoyable, with fewer opportunities for choice, than did elementary students. These variables declined steadily from lower to upper grades. Girls indicated that their class activities were more frequently interesting and enjoyable than did boys, which contributed to the significant gender differences.

There has been tremendous interest in student motivation, specifically concerning changes in motivation, as students progress from elementary school to middle school. Well documented are the challenges related to educating adolescents, which must take into account the developmental needs for this age group. Adolescent achievement and motivation can be highly influenced by peer group, self-esteem, and self-image (E. M. Anderman & Maehr, 1994; Eccles & Midgley, 1989; Hootstein, 1994). Further, there are often negative changes in achievement, attitude, motivation, and behavior as students progress from elementary to middle grades, with such changes influenced by classroom environments, peer groups, and teachers (Eccles et al., 1989; Feldlaufer, Midgley, & Eccles, 1989; McKenna, Kear, & Ellsworth, 1995; Midgley, Anderman, & Hicks, 1995; Roeser & Eccles, 1998; Wigfield & Eccles, 1994). Eccles, Wigfield, Midgley, and Reuman (1993) found that middle school students viewed their teachers as more controlling and allowed fewer student decision-making opportunities. Efficacy levels and motivation decreased for these students as they progressed through middle school. L. H. Anderman and Midgley (1997) contended that teachers hold great influence over the students they encounter each day and the classroom environment plays a significant role in the attitudes adopted by students in middle school.

Gender differences among children and adolescents have been frequently studied, with girls often reported as typically more motivated than boys (e.g., Burke, 1989; McKenna, Kear, & Ellsworth, 1995; Sadker & Sadker, 1994). There is a wide array of literature that describes the differences between boys and girls on a variety of variables including achievement, attitude, locus of control, and self-concept. Burke (1989) found that there were general differences in academic performances between boys and girls but suggested more research is needed to understand the reasons for these differences. Some researchers have suggested achievement differences are due to differences in self-esteem (Allgood-Merten & Stockard, 1991; Orenstein, 1994), whereas others believe locus of control is a primary reason (Boss & Taylor, 1989; Mullis & McKinley, 1989). The different manner in which boys and girls experience school has been suggested as perpetuating differences in achievement (Brutsaert & Bracke, 1994; Grossman & Grossman, 1994). Some have argued that schools are inherently unfair to girls, and differences in motivation and achievement are the result of differences in the opportunities and experiences afforded to each group and not to innate gender characteristics (American Association of University Women, 1992, 1999; Sadker & Sadker, 1994).

The apparent decline in motivation and the differences in achievement, perception, and attitudes between genders from elementary to middle school are complex and multifaceted issues that warrant continued investigation. Considering previous work in these areas, we thought it was reasonable to expect differences to exist in this investigation in which an affective instrument, *My Class Activities* (Gentry & Gable, 2001), was administered to a national sample of students in Grades 3–8. This instrument was used to assess student perceptions of interest, challenge, choice, and enjoyment—dimensions clearly tied in the literature to both

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motivation and learning (e.g., Ames, 1992; Csikszentmihalyi, 1990; Deci & Ryan, 1985; Schiefele, 1991; Vygotsky, 1962). By studying schools and classrooms from the perspectives of the students, researchers can gain insight concerning how students view their classroom activities, instruction, and curriculum, and these views can be considered when working toward improving achievement and motivation and, ultimately, schools. Evaluation of classroom activities from the students' perspectives is infrequently considered in educational research, school-improvement efforts, and evaluation. Such information, as presented in this research, can offer insights into both grade-level and gender differences by highlighting differences in student perceptions as they progress from elementary school to middle school as well as differences at each grade between boys and girls. This information can help educators and researchers better understand what students perceive and therefore design instructional and motivational interventions.

Method

The objectives of the present study were twofold. The first was to investigate whether student perceptions of their class activities were different for students in Grades 3–8. Specifically, the frequency students perceived that they were offered opportunities for interest, challenge, choice, and enjoyment in their classrooms was assessed and then comparisons were made among grade levels. Second, comparisons of student attitudes in each grade level were made to examine gender differences.

Participants

The researchers used school districts collaborating with the National Research Center on the Gifted and Talented (NRC/GT) at the University of Connecticut. The advantages of using these schools were many: They have volunteered to cooperate with the NRC/GT in data gathering efforts, their demographics are on file, they exist in every state, and they represent every form of school district including rural and urban. Schools included in the study were purposively selected to help ensure a nationally representative sample of diverse students from various regions and communities. The Grade 3–8 sample ($n = 3,744$) included 163 classrooms from 24 schools (16 elementary schools and 8 middle schools) in 7 states (i.e., Connecticut, Colorado, Michigan, Minnesota, New York, Ohio, and Virginia) from the eastern, northeast, midwest and western United States. Approximately one third of the students attended rural, suburban, and urban schools. These schools represented a variety of socioeconomic communities, including urban ($n = 4$) and rural schools ($n = 6$) that were Title I schools where the

Table 1
Alpha Reliability Internal Consistency Estimates by Grade Level

Grade	Interest	Challenge	Choice	Enjoyment
3	.72	.60	.59	.86
4	.80	.61	.63	.89
5	.77	.66	.70	.87
6	.86	.79	.76	.92
7	.89	.75	.73	.92
8	.89	.74	.73	.91
Total sample	.84	.70	.69	.91

majority of students received free lunches, more affluent suburban sites ($n = 7$), and schools in communities of average income ($n = 8$). Seventy-six percent of the students were Caucasian, 10% were African American, 10% were Asian American, and 3% were Hispanic American (1% were other). Forty-nine percent of the sample was female.

Instrumentation

The My Class Activities instrument contains 31 statements assessing four dimensions (interest, challenge, choice, and enjoyment), using a 5-point Likert-type response format (*never, seldom, sometimes, often, always*). In the initial development of this instrument, we investigated item content validity evidence through an extensive review of the literature and then wrote items to address the constructs. These items were submitted to 16 content experts who were asked to assign them to respective categories and then indicate how confident they were with these assignments. On the basis of this judgmental feedback, items were selected for a pilot instrument (Gentry, Maxfield, & Gable, 1998). After study of the pilot instrument, we made revisions, and a confirmatory study was undertaken for a national sample described in the following section. Validity evidence for construct interpretation was investigated through confirmatory factor analysis. A goodness of fit index of .95 and a root mean square residual of .04 were judged supportive of model fit. Item response theory was used to examine the adequacy of the definition of each construct including how well the 5-point frequency response scale worked for the items and respondents. Respondents used the entire response continuum, and the mean logit fit statistics for all dimensions increased with each higher response category (Gentry & Gable, 2001). The Appendix contains the items in the instrument that together measure each construct.

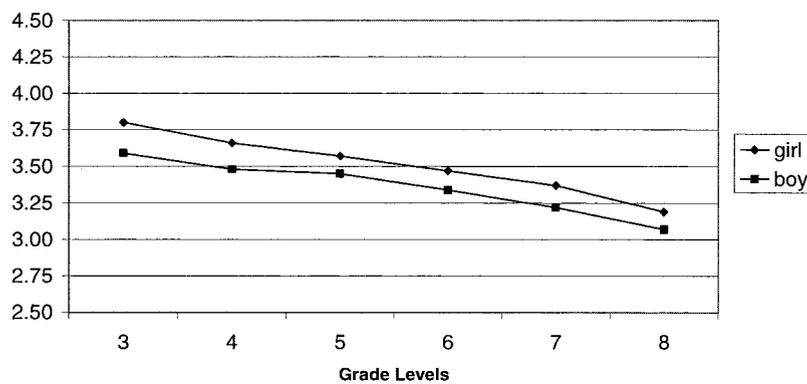


Figure 1. Interest Gender Means \times Grade Level. Responses ranged from 1 (*never*) to 5 (*always*).

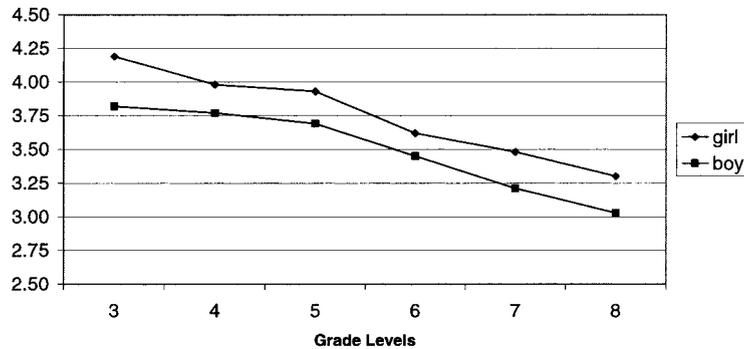


Figure 2. Enjoyment Gender Means \times Grade Level. Responses ranged from 1 (*never*) to 5 (*always*).

Design and Procedure

Data collection. To ensure uniformity in the administration of the instrument, school contact persons followed the same set of directions and administered the instrument in classrooms, resulting in a 100% return rate for all students present during the administration. By using contact persons, who informed students that their teachers would not see their responses, students were more likely to answer honestly than if their teachers had administered the instrument. Student demographics were collected from classroom teachers and included gender, ethnicity, special programming, and achievement levels.

Data analyses. Descriptive statistics, alpha reliability indices, and a two-way multivariate analyses of variance (MANOVA; Grade Level \times Gender for the set of variables: interest, challenge, choice, and enjoyment) were generated using SPSS software (SPSS, 2000).

Results and Conclusions

Total sample alpha reliability estimates for the four dimensions were as follows: interest, .84; challenge, .70; choice, .69; enjoyment, .91. Individual ranges for Grades 3–8 were as follows: interest, .72–.89; challenge, .60–.83; choice, .59–.78; and enjoyment, .86–.92. No gender differences existed on the reliability estimates for the sample. The internal consistency reliability coefficients for each grade level of students from the sample are in Table 1.

There were significant differences for the two-way MANOVA main effects of grade level, $F(20, 12322) = 26.64, p < .001$, and gender, $F(4, 3715) = 20.55, p < .001$, with no significant inter-

action of grade level and gender. Because a large sample can more easily yield statistical significance, effect sizes for these results were examined by subtracting Wilks's lambda from 1.0 to determine R^2 (Cohen, 1988; Tabachnik & Fidell, 1996). Although the grade level differences were associated with a medium effect size ($R^2 = .14$), the gender differences were at best a small effect size ($R^2 = .02$; Cohen, 1988).

We conducted univariate (Scheffé) follow-up analyses to explain the main effect for grade level. In general, students in Grades 6–8 found that their classroom activities were less frequently interesting and enjoyable, with fewer opportunities for choice than did students in Grades 3–5. There was a steady decline on these variables from lower to upper grades (see Figures 1, 2, and 3). Means and standard deviations for each dimension by gender and grade level are contained in Table 2. There are fewer variations reported by students in different grade levels concerning the frequency that they perceived their class activities as challenging, with grade level means consistently near 3.50 or between *sometimes* and *often* challenging (see Figure 4).

Student interest, choice, and enjoyment decreased as grade level increased consistent with other outcomes in early adolescents' attitudes when they enter and progress through the middle school (Eccles et al., 1989; Feldlaufer, Midgley, & Eccles, 1989; Midgley, Anderman, & Hicks, 1995). It is important to note that although the literature suggests offering a wide variety of choices, the 1,524 middle school students in this study indicated they

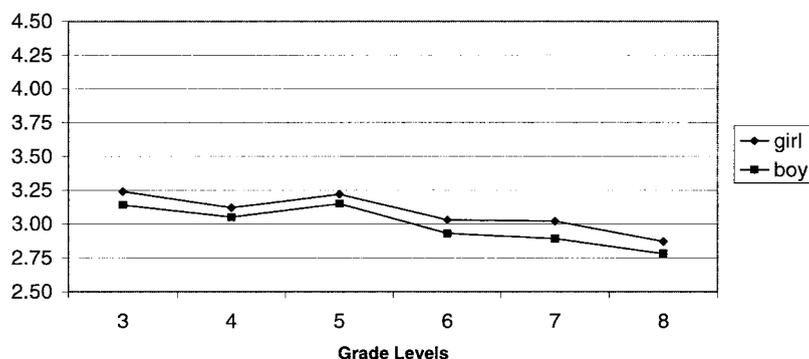


Figure 3. Choice Gender Means \times Grade Level. Responses ranged from 1 (*never*) to 5 (*always*).

Table 2
Means and Standard Deviations by Grade Level and Gender

Grade	Interest				Challenge				Choice				Enjoy			
	Girls		Boys		Girls		Boys		Girls		Boys		Girls		Boys	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
3	3.80	0.55	3.59	0.65	3.63	0.53	3.48	0.58	3.24	0.63	3.14	0.69	4.19	0.66	3.82	0.89
4	3.66	0.63	3.48	0.71	3.55	0.52	3.49	0.58	3.12	0.68	3.05	0.66	3.98	0.82	3.77	0.94
5	3.57	0.56	3.45	0.61	3.56	0.47	3.47	0.59	3.22	0.62	3.15	0.67	3.93	0.72	3.69	0.80
6	3.47	0.63	3.34	0.74	3.60	0.63	3.53	0.67	3.03	0.71	2.93	0.73	3.62	0.81	3.45	0.95
7	3.37	0.67	3.22	0.71	3.58	0.56	3.54	0.58	3.02	0.64	2.89	0.61	3.48	0.82	3.21	0.91
8	3.19	0.60	3.07	0.69	3.45	0.52	3.36	0.59	2.87	0.60	2.78	0.62	3.30	0.71	3.03	0.83

Note. The number of participants by grade were as follows: Grade 3, girls = 305 and boys = 328; Grade 4, girls = 364 and boys = 340; Grade 5, girls = 260 and boys = 309; Grade 6, girls = 399 and boys = 372; Grade 7, girls = 318 and boys = 341; Grade 8, girls = 188 and boys = 219. There was an overall total of 1,834 girls and 1,909 boys.

perceived significantly less choice than their 2,220 elementary school counterparts.

Although the effect size for gender differences was small, multiple regression was used for each grade to examine which of the interest, challenge, choice, and enjoyment variables contributed to the gender differences. Significant contributors to the gender difference were as follows: Grade 3—enjoyment, $\beta = .19, p < .0001$; Grade 4—interest, $\beta = .12, p < .05$; Grade 5—enjoyment, $\beta = .18, p < .01$; Grade 6—no variables were significant; Grade 7—enjoyment, $\beta = .17, p < .01$; Grade 8—enjoyment, $\beta = .23, p < .001$. In all of these cases, across grade levels, female students consistently perceived their classroom activities to be frequently more enjoyable than did the male students.

Implications

Student views and perceptions are important areas to consider when designing effective educational experiences. In school reform efforts, emphasis is often placed on achievement measures, whereas student attitude also plays a large role in school success. We have provided student insights concerning their views of their class activities regarding affective areas tied to learning. Findings of grade level and gender differences in these areas add valuable data to consider when developing student programs. Middle grade educators should take note of these

findings and investigate whether increasing opportunities for and emphasis on interest, choice, and enjoyment would increase student motivation and satisfaction with their class activities. Incorporating more interest, choice, and enjoyment in curricular and instructional planning especially at the middle school level might serve to increase satisfaction with school, motivation, and, in turn, achievement. Additional attention might be paid to the overall and consistently lower scores of boys than girls in the area of enjoyment and in some instances interest across grade levels. Contrary to much of the literature that discusses the risks for adolescent girls, it may be that male middle school students are also at risk for disliking school in general, which may thereby contribute to other problems (e.g., declining achievement, behavior problems, lack of engagement in learning). Therefore, both elementary and middle grade educators might consider means to engage their male students in more enjoyable learning experiences. In short, these results provide a foundation for further investigation regarding student perceptions of the degree of interest, challenge, choice, and enjoyment provided in their classrooms. Perhaps incorporating these variables into classrooms (through curriculum, instruction, and climate) might improve student learning and motivation—especially for adolescents who often experience a decline in both areas.

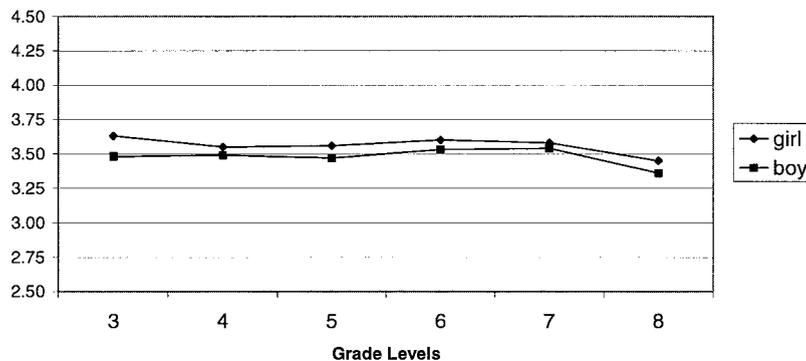


Figure 4. Challenge Gender Means × Grade Level. Responses ranged from 1 (never) to 5 (always).

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(Appendix follows)

Appendix

Items by Construct for My Class Activities

Construct	Item
Interest	What I do in my class fits my interests.
	I have an opportunity to work on things in my class that interest me.
	What I do in my class gives me interesting and new ideas.
	I study interesting topics in my class.
	The teacher involves me in interesting learning activities.
	What I learn in my class is interesting to me.
	What I do in my class is interesting.
Challenge	My class has helped me explore my interests.
	The activities I do in my class are challenging.
	I have to think to solve problems in my class.
	I use challenging materials and books in my class.
	I challenge myself by trying new things.
	My work can make a difference.
	I find the work in this class demanding.
Choice	I am challenged to do my best in class.
	What we do in class fits my abilities.
	This class is difficult.
	I can choose to work in a group.
	I can choose to work alone.
	When we work together, I can choose my partners.
	I can choose my own projects.
Enjoyment	When there are many jobs, I can choose the ones that suit me.
	I can choose materials to work with in the class.
	I can choose an audience for my product.
	I look forward to my class.
	I have fun in my class.
	The teacher makes learning fun.
	I like what I do in my class.
I like working in a class.	
The activities I do in my class are enjoyable.	
I like the projects I work on in my class.	

Note. From *My Class Activities: A Survey Instrument to Assess Students' Perceptions of Interest, Challenge, Choice, and Enjoyment in Their Classrooms* (p. 20), by M. Gentry and R. K. Gable, 2001, Mansfield Center, CT: Creative Learning Press. Copyright 2001 by Creative Learning Press. Reprinted with permission.

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