

Running head: GENERAL EDUCATION COURSEWORK

Achievement Goal Orientation toward General Education vs. Overall Coursework

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The theoretical framework employed in this study rests upon the achievement motivation work of many previous researchers such as Deci & Ryan (2000) and Pintrich & Schunk (1996) in which achievement goals have been described and differentiated. More specifically, multiple goal orientations have been identified, and the dichotomous distinction between mastery and performance learning goals has been expanded by Elliot and colleagues (Elliot, 1999; Elliot & Church, 1997; Elliot and Harackiewicz, 1996) to include first a trichotomous framework, and later a 2 x 2 achievement motivation framework (Elliot & McGregor, 2001).

The 2 x 2 factor structure has been tested in the context of achievement orientation toward a specific college course (Elliot & McGregor, 2001). This structure has also been replicated in the broader context of college coursework in general (Finney, Pieper, & Barron, 2004; Pieper, 2003). Recently, the 2 x 2 factor structure was replicated in the context of attitudes toward general education coursework (Miller & Sundre, 2007). In addition to the four achievement goals delineated in the 2 x 2 framework, a fifth type of motivation has proven to be of interest in the educational setting – namely, work avoidance (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997; Pieper, 2003).

The purpose of the current study was to investigate differences in achievement motivation toward general education and overall coursework over time. Specifically, the following research questions will be addressed:

1. Do students hold different achievement motivations toward their general education vs. overall coursework?

2. Do achievement motivations toward general education and overall coursework change over time?

Method

Instruments

Sixteen items comprise the Attitude Toward Learning and Performance in College This Semester (ATL; Pieper, 2003) questionnaire. Twelve achievement goal items were adapted from the Achievement Goal Questionnaire (AGQ; Elliot & McGregor, 2001) and were revised to address goals at the broad level of semester coursework rather than at the level of a specific course. Four additional items previously used by Harackiewicz and her colleagues (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997; Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000) measure work-avoidance, and similarly address this construct at the level of semester coursework.

The Attitude Toward Learning and Performance in General Education College Courses This Semester (ATL-GenEd) questionnaire is a modified version of the ATL. Specifically, each of the sixteen items was revised to reflect a student's goal orientation toward general education coursework. For example, the ATL Mastery-Approach item "I want to learn as much as possible this semester" was changed to "I want to learn as much as possible this semester in my general education courses" for the ATL-GenEd.

Both paper-and-pencil instruments are scored using a seven-point response scale, where 1 denotes "Not at all true of me," and 7 denotes "Very true of me." The ATL is provided as Appendix A and the ATL-GenEd is provided as Appendix B.

Participants and Procedure

JMU students participated in required university-wide assessment days on two occasions, first as entering students and again as second-semester sophomores. Some students completed both the ATL and the ATL-GenEd on both occasions. Students were randomly assigned to testing rooms, and tests were administered by proctors in a standardized fashion. In rooms where these two tests were administered, the ATL was administered at the beginning of the testing session and the ATL-GenEd was administered near the end.

During the 2005 fall semester, a total of 1089 first-year students had complete data on both the ATL and the ATL-GenEd. During the 2007 spring semester, a total of 865 sophomores had complete data on both the ATL and the ATL-GenEd. A total of 170 students completed both instruments on both occasions and were included in the analyses for this study.

Data analysis

Repeated measures. Five 2 x 2 within-subjects ANOVAs were conducted, one for each goal orientation: Mastery-Approach (MAP), Mastery-Avoidance (MAV), Performance-Approach (PAP), Performance-Avoidance (PAV), and Work-Avoidance (WAV). Context (ATL and ATL-GenEd) and class level (first-year and sophomores) were the within-subjects factors. The alpha level was adjusted to .01 in order to control for experiment-wise error, and significant interactions were followed up by examining the simple effects within class level.

Results

Subscale means and reliabilities. Table 1 presents means, standard deviations, and reliabilities for all subscales for both cohorts.

Table 1

Subscale Means, Standard Deviations, and Reliabilities by Class Level, N = 170

		<i>First-year Students</i>		<i>Sophomores</i>	
		ATL	ATL-GenEd	ATL	ATL-GenEd
MAP	Mean	17.61	16.92	16.01	12.48
	SD	2.87	3.13	3.47	4.28
	Alpha	.73	.82	.81	.88
MAV	Mean	13.01	12.66	11.70	9.67
	SD	3.76	3.80	4.02	3.65
	Alpha	.74	.83	.76	.82
PAP	Mean	15.95	15.99	15.61	14.51
	SD	4.27	4.13	4.31	5.17
	Alpha	.87	.91	.90	.91
PAV	Mean	14.45	14.53	13.18	13.08
	SD	4.18	3.81	4.46	4.66
	Alpha	.61	.65	.65	.77
WAV	Mean	10.29	11.24	12.54	16.36
	SD	4.40	4.86	4.92	5.71
	Alpha	.79	.84	.84	.85

ANOVAs. The two-way interactions between context and class level were found to be statistically significant for all but one of the subscales. In addition, the main effect for class level was found to be statistically significant for PAV. Only the interactions for PAP and WAV were interpreted to be practically meaningful. Follow-up tests of simple effects within class level yielded Cohen's *d* effect sizes for PAP and WAV of .86 and .63,

respectively. Table 2 presents *F*-statistics, *p*-values, and effect sizes for the significant results of the five ANOVAs. Figures 3a and 3b depict the interactions for PAP and WAV.

Table 2

Within-Subjects ANOVA Significant Results by Subscale

	<i>Class Level</i>			<i>Class Level x Context</i>		
	<i>F</i> (1, 169)	<i>p</i>	η^2	<i>F</i> (1, 169)	<i>p</i>	η^2
MAP	--	--	--	152.64	0.000	.47
MAV	--	--	--	18.42	0.000	.10
PAP	--	--	--	18.68	0.000	.10
PAV	23.85	0.000	.12			
WAV	--	--	--	18.42	0.000	.23

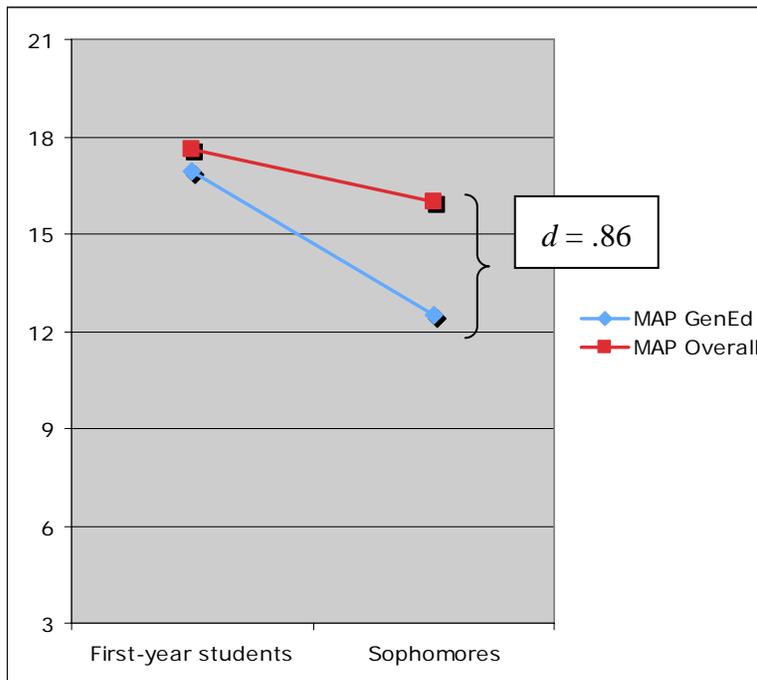


Figure 3a. Mean mastery-approach scores by context and class level.

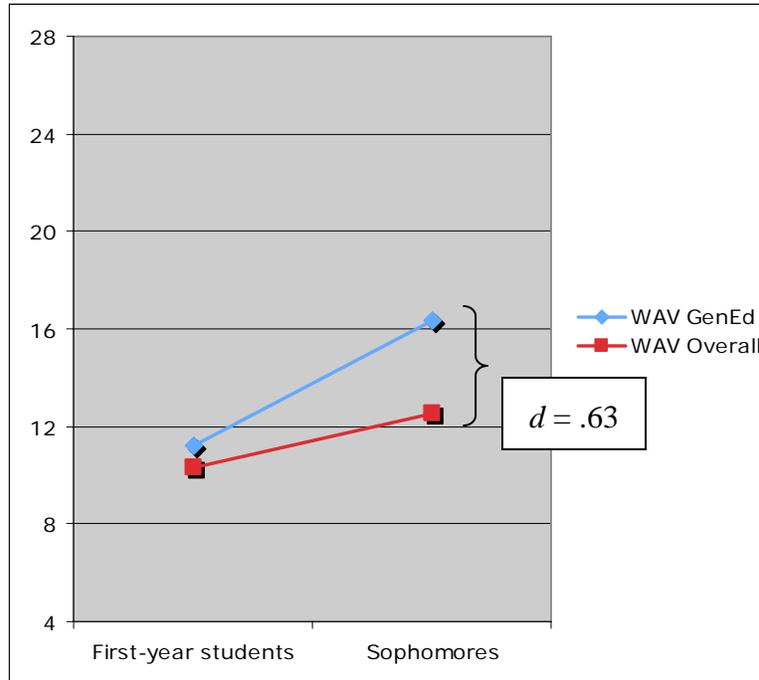


Figure 3b. Mean work-avoidance scores by context and class level.

On the occasion of first-year testing, students reported similar levels of MAP and WAV toward their general education courses and their coursework overall. Specifically, students reported a high level of MAP and a low level of WAV during their first year. At the time of sophomore testing, MAP scores in both contexts were lower, but MAP toward general education courses decreased significantly more than MAP toward overall coursework. This interaction pattern was just the opposite for WAV. That is, WAV scores in both contexts were higher on the sophomore testing occasion, but WAV toward general education courses increased significantly more than WAV toward overall coursework.

Discussion

First-year students reported similar levels of all types of achievement motivation for general education as for overall course work. It should be noted that all students entering JMU are required to attend summer visitation and a four-day orientation session prior to attending classes. The general education program is described in great detail during these sessions, and the Dean of General Education speaks at every summer visitation session. Students also speak with their advisors and register for courses (many of which will be general education) during the summer visitation day. This early exposure to the JMU general education program did not appear to contribute to differential motivation levels toward these courses for the first-year students. Rather, entering students seemed to be equally motivated toward all their courses.

By the time students became second-semester sophomores, however, their attitudes toward general education coursework as compared to their overall coursework changed significantly. This study shows that students became only *slightly* less motivated to learn and perform well in their overall coursework while becoming *much* less motivated to learn and perform in their general education coursework. In addition, students become only *slightly* more work-avoidant in their overall coursework while becoming *much* more work-avoidant in their general education coursework.

This study largely replicated results of an earlier, cross-sectional study of achievement goal changes over time (Miller & Sundre, 2007). For example, the current results suggest that sophomores seek strategies to “just get by” in their general education courses (higher work-avoidance scores) and exhibit greater learning interest in their overall coursework (higher mastery approach scores) than in general education courses.

Further, these results support the earlier findings of Barron and his colleagues (Barron, Finney, Davis, & Owens, 2003), who assessed the achievement goal orientation of students enrolling in the same introductory psychology courses for different purposes (general education vs. first prerequisite course for the psychology major). They found that students reported greater mastery approach when the course satisfied a requirement for the major rather than for general education.

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Appendix B

Attitude Toward Learning and Performance in General Education College Courses This Semester

The following statements concern your attitudes toward learning and performance in your General Education college classes this semester. Please indicate how true each statement is of you. If you think the statement is true of you, mark yourself a 7. If a statement is not at all true of you, mark a 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you. There are no right or wrong answers. Just answer as accurately as possible.

1 2 3 4 5 6 7
Not at all true of me Very true of me



- 1. My goal this semester is to get better grades than most of the other students in my General Education courses.
2. I just want to avoid doing poorly compared to other students in my General Education courses this semester.
3. Completely mastering the material in my General Education courses is important to me this semester.
4. I really don't want to work hard in my General Education classes this semester.
5. I'm afraid that I may not understand the content of my General Education courses as thoroughly as I'd like.
6. It is important for me to do well compared to other students in my General Education courses.
7. I want to learn as much as possible this semester in my General Education courses.
8. The fear of performing poorly is what motivates me in my General Education courses.
9. I want to do as little work as possible in my General Education courses this semester.
10. The most important thing for me this semester is to understand the content in my General Education courses as thoroughly as possible.
11. I worry that I may not learn all that I possibly could this semester in my General Education courses.
12. I want to do better than other students in my General Education courses this semester.
13. I want to get through my General Education courses by doing the least amount of work possible.
14. I am definitely concerned that I may not learn all that I can this semester in my General Education courses.
15. My goal this semester is to avoid performing poorly in my General Education courses compared to other students.
16. I look forward to working really hard this semester in my General Education coursework.