

Student Disposition, Textbooks, and Class Time: What Do They Really Want?

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Expectancy-value theories are foundational to the conceptualization of social learning theory (Bandura 1977, 1986), self-regulated learning (e.g., Schunk & Zimmerman, 1994), and life orientation/dispositional optimism-pessimism (Carver & Scheier, 1981, 1990). Generally, an individual will initiate and repeatedly engage in the production and performance of thoughts, actions, and behaviors toward goal attainment if there is an expectancy of success.

Scheier and Carver (1992) assert that optimism-pessimism mediates expectancies of success. People who are optimists hold positive expectations for future events and outcomes; pessimists hold negative expectations for future events and outcomes (Scheier, Carver, & Bridges, 1994). Dispositional optimism is indicated as a beneficial component of both physical and psychological well-being and adjustment to life transitions. (Allison, Guichard, & Gilain, 2000; Aspinwell & Taylor, 1992; Scheier & Carver, 1992). The Life Orientation Test (Scheier & Carver, 1985) was devised to assess one's expectancy of outcomes. It was later revised (LOT-R: Scheier et al., 1994).

The self-regulated learner is described as exhibiting self-efficacy, intrinsic motivation, and a learning goal orientation, having developed higher-order cognitive and metacognitive awareness, skills, and effective learning and study strategies (Zimmerman & Martinez-Pons, 1988). Self-regulated learning is predictive of academic achievement and success (Zimmerman, 1986; Zimmerman, Bandura, & Martinez-Pons, 1992), and is related to optimism-pessimism (Schunk & Zimmerman, 1994).

Previous research has indicated that life-orientation (i.e., dispositional optimism – pessimism) is related to the study habits of college students and the final grade attained in a course (Skidmore & Aagaard, 2010). Greater pessimism was associated with non-preparation for examinations, including non-review of notes taken during class time. With regard to course grade, students earning a C grade were more pessimistic than students earning an A grade. Interestingly students exhibiting earning D or F grades exhibited less pessimism than B or C students.

A continuing concern of faculty is the fact that students do not engage in preparatory activities such as reading the assigned texts / materials or reviewing notes, either before commencement of class time, or before examinations (Aagaard & Skidmore, 2004; Clump, Bauer, & Bradley, 2004; Lei, Bartlett, Gorney, & Herschbach, 2010; Sikorski et al., 2002). It seems that most of what students extract from a course is predominantly from their experiences during class time, changing the course dynamic. A lack of individual student preparation / pre-engagement with course materials "...compels professors to make a different set of lecture plans when thinking about what to do with students during class" (Aagaard, Conner, & Skidmore, 2010, p. 2). Studies regarding strategies that instructors might implement have suggested the implementation of quizzes over course materials, study / worksheets, "chunking" reading tasks into smaller units, and using the textbook as the basis of in-class instructional activities (Ruscio, 2001; Ryan, 2006; Aagaard & Skidmore, 2006, 2009). Problem-based learning techniques (Oliver, 2007), and investigation of student preferred teaching styles (Zhang, 2008) have also be considered.

Previous research (Aagaard et al., 2010) suggests that there is considerable variation with regard to student preferences as to how text materials are used and for what occurs during a

given class session. Whether students engaged the assigned readings from text materials depended upon other factors. These included whether or not the text materials were associated with credit-bearing activities, if the text was used during class time, and the relative size of the reading assignments (i.e., shorter is 'better'). First-year students felt that reading text materials before class time should not be required, while seniors acknowledged that reading such materials depended upon other factors, having learned to 'read the instructor' and adapt to the college environment more effectively. Students did express a preference for a lecture format in a course, but with some variation, including the introduction of related non-text materials, in-class group discussion, and advanced instructor-prepared organizers (e.g., PowerPoint slides). Online open-book quizzes and tests were preferred to in-class quizzes without the benefit of textbooks and notes. Freshmen and juniors-level students preferred a group presentation format in open-forum evaluative situations, whereas sophomores and seniors preferred to work independently.

Therefore, given the findings of Skidmore and Aagaard (2010), and Aagaard et al. (2010), the purpose of this study was to investigate the association between student dispositions (i.e., optimism-pessimism), and student preferences regarding the use of text materials and in-class activities.

Method

Participants

This study employed a convenient cluster sample of 105 students taking summer classes at a regional university in the mid-south. Sixty-one percent of respondents were female and nearly 100% were Caucasian. They reported 29 different majors, with the highest concentrations being education (17%), biology-related (13%), and agriculture-related (10%). The distribution across year in college is shown in Table 1. Students were asked to self-report their GPA range.

A large majority (63%) claimed a B average, while 30% reported a C average. The remaining 7% were split between A and D average grade point averages.

Table 1

Sample Distribution Across Year in College

<u>Year</u>	<u>n</u>	<u>%</u>
Freshman	26	25
Sophomore	19	18
Junior	26	25
Senior	33	31
Graduate	1	1

Instrumentation

Participants were administered a 25-item researcher-designed survey (see Appendix A) that included 11 items regarding use of course textbooks, 11 items about preferences for use of class time and four demographic items. All items were multiple-choice.

Textbook items asked whether students read their textbooks when assigned to do so, as well as whether particular strategies by the professor would get students to read their textbooks or not. Each class-time-use-preference item was forced choice between two options (for instance, between professor lecture and group activities).

Participants also completed the Revised Life Orientation Test (see Appendix B). Scheier and Carver (1985) developed the Life Orientation Test (LOT) to assess an individual's generalized outcome expectancies / dispositional optimism with eight scored items. In response to questions and criticisms of the instrument (e.g., Smith, Pope, Rhodewalt, & Poulton, 1989), the developers of the LOT undertook a reevaluation of the instrument (Scheier et al. (1994), determining that the LOT was effective in assessing an individual's generalized optimism. Additional questions and considerations led to the construction of the Revised Life Orientation

Test (LOT-R), containing six scored items. Initial psychometric analysis by the Scheier et al. (1994) found that the instrument demonstrated acceptable discriminate validity, internal consistency (Cronbach's alpha = .78), and test-retest reliability. (In the current study, Cronbach's alphas for the total LOT-R and the pessimism scale were 0.80, but only 0.62 for the optimism scale.) The instrument has been extensively implemented in the investigation of attributes and beliefs of various college student populations, including subjective well-being (Ayyash-Abdo & Alamuddin, 2007), irrational beliefs (Chang & Bridewell, 1998), worldview (Coll & Draves, 2008), and prediction of depressive symptoms (Vickers & Vogeltanz, 2000).

Procedure

Researchers requested permission from course instructors to administer both instruments to their students in the last 15 minutes of a regularly scheduled class period. Courses surveyed were spread across the departments of agriculture, geology, biology, physics, philosophy, education, English, and history.

Analysis

Total LOT-R, pessimism, and optimism means and related standard deviations were computed for demographic sub-groups and visually inspected for effect size prior to statistical testing. Nine inferential tests (seven ANOVAs and two t-tests) were conducted on LOT-R total score or item means, with follow-up Ryan-Einot-Gabriel-Welsch (REGWQ) Multiple Range Tests (*SPSS Advanced Models*, 2006, p. 12; Toothaker, 1993) for the ANOVAs and a Bonferroni correction of the resulting alphas. As a result, statistical tests with p-values of less than or equal to 0.006 were considered significant.

Results

None of the tests conducted met the Bonferroni alpha criterion. More can be concluded from these data about what does not relate to optimism and pessimism than about any positive relationships between LOT scores and textbook use or preference for class time activities. Thus, results presented here point to areas of trend in the data that could be followed up in a subsequent study rather than significant findings of the current research.

Reading Textbook Assignments

Analysis of the survey item regarding whether students read the textbook assignments indicated that students with higher optimism trended toward not reading assignments from the text. Although the overall ANOVA was not significant even at an alpha of 0.05, the individual comparison test indicated that those who answered “No” to item 2 on the survey were the highest in optimism (see Table 2). However, that was also the smallest group, so the mean is likely unstable. The effect size for the mean difference between “Yes” and “No” was 0.73 for LOT-R total score and 0.96 for Optimism.

Table 2

ANOVA Results for LOT-R Scores by Survey Item 2: “Do you actually read the textbook material when it is assigned?”

Variable	<u>Yes (n=55)</u>	<u>No (n=6)</u>	<u>It Depends (n=44)</u>	F	p
	Mean (Std.)	Mean (Std.)	Mean (Std.)		
LOT-R total	19.73 (4.95)	23.17 (3.66)	21.00 (4.35)	2.00	0.1412
Optimism	10.80 ^A (2.70)	13.17 ^B (0.75)	11.07 ^A (2.21)	2.55	0.0830

Note: Means marked A were significantly different from the mean marked B as tested by the REGWQ.

Reading Study Guide

Analysis of item 3.c. (“Have a study guide for me to fill out while reading the assignment, then give me credit for turning it in.”) in the section of the survey regarding possible strategies for increasing the likelihood that students would read assignments indicated that a study guide might accomplish that goal for nearly all students. There were no statistically significant differences in any of the scores, but the highest values across the board appeared in the “Would Read” category (see Table 3). The effect size of the difference between “NOT Read” and “Would Read” was 0.80 for LOT-R total, 0.81 for Optimism, and 0.62 for Pessimism.

Table 3

ANOVA Results for LOT-R Scores by Survey Item 3.c.: “Have a study guide for me to fill out while reading the assignment, then give me credit for turning it in.”

Variable	NOT Read (n=4)	Might Read (n=20)	Would Read (n=81)	F	p
	Mean (Std.)	Mean (Std.)	Mean (Std.)		
LOT-R total	17.25 (2.36)	18.85 (5.15)	21.01 (4.55)	2.76	0.068
Optimism	9.25 (1.50)	10.60 (2.66)	11.25 (2.44)	1.67	0.194
Pessimism	8.00 (1.41)	8.25 (3.14)	9.77 (2.79)	2.82	0.064

Individual vs. Group Presentations

The only class time activity preference that even approached statistical significance related to LOT scores was item 13, regarding preference for group or individual presentations during class. As shown in Table 4, students who preferred to present individually rather than in a group were higher in pessimism and higher in LOT-R total score than those who preferred group presentations. The individual t-tests for unequal variances were significant at $\alpha=0.05$, but did not make the Bonferroni-adjusted alpha of 0.006, although the test for pessimism came the closest of any of the analyses conducted.

Table 4

LOT-R and Pessimism t-test Results for Survey Item 13: Preference for Group vs. Individual Presentation Related to the Textbook

Variable	<u>Individual (n=36)</u>		<u>Group (n=66)</u>		t	p	effect size
	Mean	(Std.)	Mean	(Std.)			
LOT-R Total	21.81	(4.53)	19.70	(4.67)	2.22	0.0293	0.45
Pessimism	10.42	(2.89)	8.83	(2.78)	2.68	0.0079	0.55

Discussion

An important goal associated with educators at any level is to achieve conditions in which the courses being taught are accessible by the students they serve. In moving toward that end, this study sought to identify associations that might exist between student personal factors (e.g. reported optimism or pessimism) and instructor-controlled factors (e.g. types of assignments, methods of instructional delivery, etc.). In so doing, the researchers attempted to not only better understand the students they serve generally, but perhaps more importantly, they [the researchers] attempted to find effective ways in which the construction of the course better served the needs of the learners being taught. This particular study was meant to function as an indicator of such associations, with the goal being to reconsider methods of instructional delivery as evidenced by study results. Unfortunately, there were no associations in these measures of the relationship between student optimism/pessimism and the use of textbooks or student-preferred classroom methods that met the stringent Bonferroni-adjusted significance requirements.

Although the results of this study yielded no statistically significant findings, one should note the trend data provided from the results and their associated effect sizes. The study did yield results that would suggest that students with higher reported optimism trended toward not

reading the text independently. Perhaps this is due to their perception of being able to be successful without reading for class, but this study could not independently assert such a position. Further, students did suggest that providing graded study-guides might encourage them to read more of the course material. Again, with no way of demonstrating this conclusion from the study, it is believed this might have to do with students feeling like they are receiving course credit for outside work. Finally, it should be noted again that students in this sample with higher reported pessimism tended to prefer working independently. Although these data were not significant statistically, they still offer a glimpse into potential associations that should be explored further.

In a future study, it would be beneficial to have a larger and more diverse sample of students and target the elements that had the largest effect sizes in this study, such as having a study guide accompanying assigned reading. Once such research has been conducted, a follow-up study of a quasi-experimental type could be conducted. For instance, offering the various types of text-guides and more formative assessments of reading to different sections of the same course while using others as controls might show what strategy was more effective in getting students to become engaged with the text prior to coming to class. Similar studies could be done with independent vs. group projects and presentations.

This exploratory study provided the researchers with information useful to refining and extending the chain of research on these topics. In this sense, the results of the study were “significant,” as they provide adequate evidence to justify the continuation of study related to these research themes.

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Appendix A

Textbook and Use of Class Time Survey

(Please circle the most appropriate answer and write comments in the blanks provided.)

1. Do you think you should be required to read material in the textbook before coming to class?

Yes No It depends

Why? _____

2. Do you actually read the textbook material when it is assigned?

Yes No It depends

Why? _____

3. What could the professor do to get you to read the textbook assignments? (Mark the most appropriate column for each strategy.)

Professor's strategy	I would still not read the textbook.	I might read the textbook.	I would most likely read the textbook.
a. Give me an in-class quiz over material from the textbook assignment.			
b. Give me an online open-book quiz over the textbook assignment.			
c. Have a study guide for me to fill out while reading the assignment, then give me credit for turning it in.			
d. Actually discuss the content of the textbook assignment in class.			
e. Test me over material that was in the textbook but <u>not</u> discussed in class.			
f. Make shorter reading assignments.			
g. Use the textbook in class in some way.			
h. Teach me how to use the textbook's instructional features (glossary, summaries, etc.).			

4. Have you ever used an e-textbook for one of your classes?

Yes No What is an e-textbook?

If "Yes," tell us what you thought of it; If "No," why not? _____

(The remaining survey items are about use of class time. For each item pair, circle the letter of the way you would prefer class time be spent. Even if you like or dislike both, please choose one over the other.)

5. I would prefer the professor lectured:

- A. only over material that was in the textbook.
- B. over the textbook, but also some material that was NOT in the textbook.

6. I would prefer the professor used:

- A. Powerpoint slides to present basic notes for the lecture.
- B. the chalkboard to present basic notes for the lecture.

7. I would prefer the professor lectured:

- A. only over material that will be tested.
- B. over tested material, but also over some material that is interesting but not going to be tested.

8. I would prefer the professor:

- A. lectured only over the textbook material.
- B. covered the content, but also gave examples of how the material applied to real life.

9. I would prefer the professor:

- A. just lectured over the textbook material in some way.
- B. encouraged group discussion of the material.

10. I would prefer the professor:

- A. just lectured over the textbook material in some way.
- B. had students do group activities related to the material.

11. I would prefer the professor:

- A. encouraged group discussion of the textbook material.
- B. had students do in-class group activities related to the textbook material.

12. I would prefer the professor:

- A. had students do in-class group activities related to the textbook material.
- B. had students do individual presentations of projects related to the textbook material.

13. I would prefer the professor:

- A. had students do individual presentations of projects related to the textbook material.
- B. had students do group presentations of projects related to the textbook material.

14. I would prefer the professor:

- A. lectured over content in class.
- B. put the lectures in audio files online to be listened to prior to class, then did other interesting things related to the content during class.

15. I would prefer the professor gave:

- A. in-class closed-book quizzes over textbook content.
- B. online open-book quizzes over textbook content prior to the class period.

16. Are there any other activities you wished professors did in class that would be beneficial to you as a learner? _____

17. What is your gender?

- A. Male
- B. Female

18. What year of college are you in?

- A. Freshman
- B. Sophomore
- C. Junior
- D. Senior

19. What is your major? _____

20. What is your overall GPA?

- A. 0-0.99
- B. 1.0-1.99
- C. 2.0-2.99
- D. 3.0-3.99
- E. 4.0

Appendix B

Life Orientation Test – Revised

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no “correct” or “incorrect” answers. Answer according to your own feelings, rather than how you think “most people” would answer.

Item	I agree a LOT	I agree a LITTLE	I neither agree nor disagree	I disagree a LITTLE	I disagree a LOT
1. In uncertain times, I usually expect the best.					
2. It's easy for me to relax.					
3. If something can go wrong for me, it will.					
4. I'm always optimistic about my future.					
5. I enjoy my friends a lot.					
6. It's important for me to keep busy.					
7. I hardly ever expect things to go my way.					
8. I don't get upset too easily					
9. I rarely count on good things happening to me.					
10. Overall, I expect more good things to happen to me than bad.					

From: Scheier, M.F., Carver, C.S., & Bridges, M.W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.