Are College Students' Textbook Reading and Instructional Preferences Related to Their Self-Efficacy and Disposition?

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Expectancy-value theories conceptualize motivation as an interaction between internal thoughts and environmental contexts. These theories are seminal to the work of researchers and theorists in the areas of (a) social learning and social cognitive theory (Bandura, 1977a, 1986); (b) models of self-regulated learning particularly with reference to behavioral self-regulation (e.g., Schunk, 1989; Zimmerman, 1986); (c) self- efficacy (Bandura, 1977b); and (d) dispositional optimism-pessimism (e.g., Carver & Scheier, 1981, 1990). In general, people will continue to engage in the production of thoughts, actions, and behaviors that they perceive will garner attainment of cognized goals, as long as expectancies of success remain intact. When perceived success is jeopardized or in doubt, individuals are likely to cease persistence toward these established goals and to disengage from the task.

Self-efficacy can be conceptualized as an individual's belief in their ability to be successful at a given task. (Bandura, 1977b). An individual may know what specific behaviors and skills are necessary to produce desired outcomes, yet they may have varying beliefs about the degree to which they can adequately produce and engage in those behaviors, partially accounting for differences in performance on the given tasks (Wood & Bandura, 1989).

As stated by Bandura (1977b), although self-efficacy is not the only factor responsible for individual behaviors and success on tasks, "perceived self-efficacy [has] a directive influence on choice of activities and settings [and] through expectations of eventual success, it can affect coping efforts once they are initiated" (p. 194). As applied to academic learning, individuals that believe in their ability to engage in behaviors appropriate for learning (i.e. have developed a

higher academic self-efficacy), are more likely do so, and are more likely to persist toward achieving success if they initially encounter difficulty in achieving the operationalized goals.

Scheier and Carver (1992) define dispositional optimism as the generalized predisposition toward expecting outcomes to be positive, assert that optimism-pessimism mediates expectancies of success, and that differences in outcomes can be attributed, at least partially, to differences in how optimists and pessimists perceive and cope with life challenges (Scheier, Carver, & Bridges, 1994). People who are optimists generally hold positive expectancies for the future, whereas people who are pessimists tend to hold negative expectancies for the future (Scheier et al., 1994). Scheier and Carver (1985, 1992) suggest that optimism-pessimism mediates these generalized expectancies in a self- regulatory function. Goal-directed behavior is therefore guided by an individual's assessment of the congruency between behavior and attainment of a goal.

Research indicates that dispositional optimism is a beneficial factor in the establishment of physical and psychological well-being, adjustment to life transitions, and post-surgery recovery. (Allison, Guichard, & Gilain, 2000; Aspinwell & Taylor, 1992; Scheier et al., 1989; Scheier & Carver, 1992). Differences in these outcomes are attributed, at least partially, to differences in how optimists and pessimists perceive and cope with life challenges (Scheier, Carver, & Bridges, 1994).

> A general characterization of findings of this research is that optimists tend to use more problem-focused coping strategies than do pessimists. When problem-focused coping is not a possibility, optimists turn to more adaptive emotion-focused coping strategies such as acceptance, use of humor and positive reframing of the situation. Pessimists tend to cope through overt denial and by mentally and behaviorally disengaging from the goals

> with which the stressor is interfering, regardless of whether something can be done to solve the problem or not. (p. 1063)

The Life Orientation Test (LOT: Scheier & Carver, 1985), later revised (LOT-R: Scheier, Carver, & Bridges, 1994), was constructed to assess an individual's generalized expectancy of outcomes.

Previous research in academic situations at the post-secondary level found that optimism was 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. Relative to overall course grade, students earning a C grade were more pessimistic than students earning an A grade. Interestingly, students earning D or F grades exhibited less pessimism than did B or C students. Generally, students exhibiting dispositional optimism more effectively and more favorably adjusted to transitional life events (e.g. engaged in test preparation strategies) than did students that exhibited a pessimistic outlook.

Zimmerman (1986) and Zimmerman and Martinez-Pons (1988) describe a self-regulated learner as an individual who engages in or exhibits: (a) a high level of self-efficacy, intrinsic motivation, and a learning achievement goal orientation; (b) deep level cognitive strategies such as elaboration or organization; and (c) metacognitive strategies such as planning and self-monitoring. Self-regulated learning has been shown to be predictive of achievement (Zimmerman, 1986) and academic success (Zimmerman, Bandura, & Martinez-Pons, 1992). Students who perceive themselves as being effective in their study efforts also see themselves as being able to control their performance in academic tasks, and are motivated to strategically plan their study efforts. Those who see themselves as being less successful in their efforts are likely to

be less optimistic (pessimistic) with regard to future goal attainment, and may be less motivated in their persistence toward present goals and the implementation of effective study strategies (Schunk & Zimmerman, 1994).

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). 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, 2001; Aagaard & Skidmore, 2006, 2009). Problem-based learning techniques (Oliver, 2007), and investigation of student preferred teaching styles (Zhang, 2008) have also been considered.

Previous research at an institution serving a high-poverty area (Aagaard, Skidmore, & Conner, 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 that these models have common theoretical foundations, and are of interest to those engaged in various arenas of higher education, the purpose of this study was to investigate the relationships among self-efficacy, dispositional optimism/pessimism, and student engagement preferences in a post-secondary academic context.

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. Sophomores were under-represented compared to the other years of undergraduate students.

Table 1

Sample Distribution Across Year in College

Year	n	%
Freshman	26	25
Sophomore	19	18
Junior	26	25
Senior	33	31
Graduate	1	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.

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).

The 19-item *Self-Efficacy for Learning Form – Abridged* (SELF-A) (Zimmerman & Kitsantas, 2007) was employed to gauge student academic self-efficacy (see Appendix B). This instrument has a single factor structure and is highly consistent internally (Cronbach's alpha=0.92). The SELF-A assesses student confidence with skills such as taking notes, getting ready for tests, and studying, as well as with motivation, time management, and attention. Participants are asked to indicate the percentage of confidence they have regarding the topic of each item, from 0% (Definitely Cannot Do It) up to 100% (Definitely Can Do It).

Participants also completed the Revised Life Orientation Test (see Appendix C). 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. The instrument is scored so that high scores on any scale indicate higher optimism. Thus, low scores on the pessimism scale indicate increased pessimism.

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

Previous research (Skidmore & Aagaard, 2010) has shown greater pessimism to be related to students not engaging in behaviors associated with successful participation in the college context (e.g., not preparing at all for tests, not preparing ahead of time for tests, and not reading the notes taken in class), similar to the outcomes found by Conner, Aagaard, and

Skidmore (2011) regarding self-efficacy. Thus, study participants were divided into four groups based on their total self-efficacy scores and pessimism scores. Participants were grouped as "high" or "low" self-efficacy based on a comparison of their individual academic self-efficacy to the group average (65.3) for all participants. Similar comparisons of individual ratings of pessimism to the group average (9.4) resulted in sub-dividing each of the self-efficacy groups into "high" (lower than 9.4) and "low" (higher than 9.4) pessimism groups.

Cross-tabular frequency tables on the study survey items were run for those groups, with chi-square statistical analysis, and the results were inspected for descriptive trends. The Bonferroni adjustment necessary for 21 statistical tests lowered alpha to 0.0024.

Results

Two-way frequency tables were compiled for the pessimism/self-efficacy combinations and three of the demographic variables: gender, year in college, and self-reported GPA. Table 2 shows that females were distributed fairly equally across the groups, but males had more representation in the high pessimism/low self-efficacy group and less in the low pessimism/low self-efficacy group.

Table 2

Pessimism and Self-Efficacy Combinations by Gender

		Gender		
		Male	Female	Total
Low Pessimism / High S.E.	Count	10	19	29
	Column %	24%	30%	
Low Pessimism / Low S.E.	Count	4	13	17
	Column %	10%	20%	
High Pessimism / High S.E.	Count	11	17	28
	Column %	27%	27%	
High Pessimism / Low S.E.	Count	16	15	31
	Column %	39%	23%	
		100%	100%	
	Total	41	64	105

The spread across the combination groups by year in college is displayed in Table 3. There was no consistent pattern, with each year having a higher representation in a different combination of pessimism and self-efficacy, except that seniors were more like sophomores than the other years.

Table 3

Pessimism and Self-Efficacy Combinations by Year in College

		Year in College				
		Fresh.	Soph.	Junior	Sen./Grad	Total
Low Pessimism / High S.E.	Count	5	6	8	10	29
	Column %	19%	32%	31%	29%	
Low Pessimism / Low S.E.	Count	6	1	5	5	17
	Column %	23%	5%	19%	15%	
High Pessimism / High S.E.	Count	5	8	4	11	28
	Column %	19%	42%	15%	32%	
High Pessimism / Low S.E.	Count	10	4	9	8	31
	Column %	39%	21%	35%	24%	
		100%	100%	100%	100%	
	Total	26	19	26	35	105

There was no real pattern to the relationship between GPA and pessimism/self-efficacy combination, either, with the participants in each GPA category proportionately distributed across the combination groups (see Table 4). The one exception was with the four A students, who fell into only two of the combination groups.

Table 4

Pessimism and Self-Efficacy Combinations by Self-Reported GPA

		GPA				
		D	C	B	A	Total
Low Pessimism / High S.E.	Count	1	8	20	0	29
	Column %	33%	26%	31%	0%	
Low Pessimism / Low S.E.	Count	0	5	9	2	16
	Column %	0%	16%	14%	50%	
High Pessimism / High S.E.	Count	1	8	17	2	28
	Column %	33%	26%	26%	50%	
High Pessimism / Low S.E.	Count	1	10	19	0	30
	Column %	33%	32%	29%	0%	
		100%	100%	100%	100%	
	Total	3	31	65	4	103

Statistical results are presented in order of the items on the Textbook and Use of Class Time survey. None of the chi-square analyses achieved the Bonferroni-adjusted significance level of 0.0024, although three of them were below 0.05.

Item 1 of the survey dealt with whether reading the textbook should be required of students before they came to class (see Table 5). Higher self-efficacy students were more likely to think they should be required to read the textbook, with those in the high pessimism part of that group the most likely of all. In contrast, students with low pessimism and low self-efficacy were the most likely to think they should not be required to read the textbook before class.

Table 5

Response to Survey Item #1, by Pessimism and Self-Efficacy

		Do you think you should be required to read material in the textbook before coming to class?			
		Yes	No	Depends	Total
Low Pessimism / High S.E.	Count	10	3	16	29
	Row %	35%	10%	55%	28%
Low Pessimism / Low S.E.	Count	2	7	8	17
	Row %	12%	41%	47%	16%
High Pessimism / High S.E.	Count	13	3	12	28
	Row %	46%	11%	43%	27%
High Pessimism / Low S.E.	Count	7	8	16	31
	Row %	22%	26%	52%	29%
	Total	32	21	52	105

Note: Chi-square = 12.5*; df*=6; *p*=0.0525

The same pattern held for actually reading the textbook material when it was assigned (see Table 6). High self-efficacy students were more likely to indicate they read assigned material, with the high pessimism students the most likely. Although students with lower self-efficacy were less likely to indicate they read the material, those with low pessimism were the least likely of all.

Table 6

Response to Survey Item #2, by Pessimism and Self-Efficacy

		Do you actually read the textbook material when it is assigned?			
		Yes	No	Depends	Total
Low Pessimism / High S.E.	Count	17	0	12	29
	Row %	59%	0%	41%	28%
Low Pessimism / Low S.E.	Count	5	3	9	17
	Row %	29%	18%	53%	16%
High Pessimism / High S.E.	Count	19	1	8	28
	Row %	68%	3%	29%	27%
High Pessimism / Low S.E.	Count	14	2	15	31
	Row %	45%	7%	48%	29%
	Total	55	6	44	105

Note: Chi-square = 11.7*; df*=6; *p*=0.07

Items 3a-3h dealt with various ways the professor might encourage students to read the textbook, the first of which was giving an in-class quiz over the assigned material (see Table 7). Students' responses indicated this might be an effective strategy, as none of them replied that they would not read the textbook even if there was a quiz. However, the division between those who said they "might" read the material versus those who said they "most likely" would read it was largely related to self-efficacy again. Students with high self-efficacy reported in the "most likely" category with higher frequency, although in this case, it was the low pessimism group that seemed most motivated by the prospect of an in-class quiz. In students with lower self-efficacy, there was less of a gap in percentage reporting "most likely," but it favored those with low pessimism.

Table 7

Response to Survey Item #3a, by Pessimism and Self-Efficacy

		Read text if given an in-class quiz over material from the textbook assignment?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	0	3	26	29
	Row %	0%	10%	90%	28%
Low Pessimism / Low S.E.	Count	0	6	11	17
	Row %	0%	35%	65%	16%
High Pessimism / High S.E.	Count	0	7	20	27
	Row %	0%	26%	74%	26%
High Pessimism / Low S.E.	Count	0	12	19	31
	Row %	0%	39%	61%	30%
	Total	0	28	76	104

Note: Chi-square = 12.5*; df*=3; *p*=0.0765

Online open-book quizzes (see Table 8) seemed to be less motivating for all students than traditional in-class quizzes. Strangely, the students most likely to read the text in this condition were those with both low self-efficacy and high pessimism, with the next highest percentage those with high self-efficacy and low pessimism.

Table 8

Response to Survey Item #3b, by Pessimism and Self-Efficacy

		Read text if given an online open-book quiz over the textbook assignment?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	3	11	15	29
	Row %	10%	38%	52%	28%
Low Pessimism / Low S.E.	Count	5	6	6	17
	Row %	29%	35%	35%	16%
High Pessimism / High S.E.	Count	8	11	8	27
	Row %	30%	40%	30%	26%
High Pessimism / Low S.E.	Count	4	7	20	31
	Row %	13%	23%	64%	30%
	Total	20	35	49	104

Note: Chi-square = 10.4*; df*=6; *p*=0.1105

A reading study guide (with credit for turning it in) seemed to be highly motivating to students low in pessimism (see Table 9), regardless of self-efficacy, but somewhat less so for those higher in pessimism.

Table 9

Response to Survey Item #3c, by Pessimism and Self-Efficacy

		Read text if given a study guide to fill out (for credit) while reading the assignment?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	0	3	26	29
	Row %	0%	10%	90%	28%
Low Pessimism / Low S.E.	Count	0	2	15	17
	Row %	0%	12%	88%	16%
High Pessimism / High S.E.	Count	3	7	18	28
	Row %	11%	25%	64%	27%
High Pessimism / Low S.E.	Count	1	8	22	31
	Row %	3%	26%	71%	29%
	Total	32	21	52	105

Note: Chi-square = 9.8*; df*=6; *p*=0.1339

Discussing the content of the textbook assignment in class (see Table 10) was somewhat motivating to most of the students, but least of all to those with low pessimism and low self-efficacy. Over one-third of that group said they would still not read the textbook, even if the assigned material was being discussed in class.

Table 10

Response to Survey Item #3d, by Pessimism and Self-Efficacy

		Read text if the content of the textbook assignment is actually discussed in class?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	4	8	17	29
	Row %	14%	27%	59%	28%
Low Pessimism / Low S.E.	Count	6	7	4	17
	Row %	35%	41%	24%	17%
High Pessimism / High S.E.	Count	0	12	14	26
	Row %	0%	46%	54%	25%
High Pessimism / Low S.E.	Count	4	12	15	31
	Row %	13%	39%	48%	30%
	Total	14	39	50	103

Note: Chi-square = 13.7*; df*=6; *p*=0.0329

Testing over material that was not discussed in class but was in the textbook reading assignments will get most students to read the textbook (see Table 11). Interestingly, students with lower pessimism were more likely to read because of this than those with higher pessimism, regardless of level of self-efficacy.

Table 11

Response to Survey Item #3e, by Pessimism and Self-Efficacy

		Read text if tested over material that was in the textbook but *not* discussed in class?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	0	3	26	29
	Row %	0%	10%	90%	28%
Low Pessimism / Low S.E.	Count	0	2	14	16
	Row %	0%	12%	88%	16%
High Pessimism / High S.E.	Count	3	4	20	27
	Row %	11%	15%	74%	26%
High Pessimism / Low S.E.	Count	2	5	24	31
	Row %	6%	16%	77%	30%
	Total	5	14	84	105

Note: Chi-square = 5.49*; df*=6; *p*=0.4823

Making shorter reading assignments (see Table 12) might entice a lot of students to read the textbook, but more so for those low in pessimism. Within each pessimism group (low and high), a higher percentage of students with high self-efficacy indicated they would read the text if the assignments were shorter compared to those with low self-efficacy.

Table 12

Response to Survey Item #3f, by Pessimism and Self-Efficacy

		Read text if professor makes shorter reading assignments?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	0	3	26	29
	Row %	0%	10%	90%	28%
Low Pessimism / Low S.E.	Count	0	4	13	17
	Row %	0%	24%	76%	16%
High Pessimism / High S.E.	Count	1	7	19	27
	Row %	4%	26%	70%	26%
High Pessimism / Low S.E.	Count	0	9	21	30
	Row %	22%	26%	52%	29%
	Total	1	23	79	103

Note: Chi-square = 6.6*; df*=6; *p*=0.3605

If the textbook will be used in class in some manner, higher percentages of students with low levels of pessimism said they would read the assignment in contrast to students with higher pessimism levels (see Table 13). The most likely to read the text under this condition were students with a combination of low pessimism and high self-efficacy.

Table 13

Response to Survey Item #3g, by Pessimism and Self-Efficacy

		Read text if the textbook is used in class in some way?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	0	10	19	29
	Row %	0%	34%	66%	28%
Low Pessimism / Low S.E.	Count	4	7	6	17
	Row %	12%	41%	47%	16%
High Pessimism / High S.E.	Count	0	12	15	27
	Row %	0%	44%	56%	26%
High Pessimism / Low S.E.	Count	1	16	14	31
	Row %	3%	52%	45%	30%
	Total	5	45	54	104

Note: Chi-square = 18.6*; df*=6; *p*=0.0050

The majority of students did not feel that teaching them how to use the textbook's instructional features would get them to read the assignments. Fewer than one-third in any group said they would be "most likely" to read the text under this condition (see Table 14).

Table 14

Response to Survey Item #3h, by Pessimism and Self-Efficacy

		Read text if taught how to use the textbook's instructional features (glossary, summaries, etc.)?			
		No	Might	Most Likely	Total
Low Pessimism / High S.E.	Count	8	12	9	29
	Row %	28%	41%	31%	28%
Low Pessimism / Low S.E.	Count	7	6	4	17
	Row %	41%	35%	24%	16%
High Pessimism / High S.E.	Count	12	7	8	27
	Row %	44%	26%	30%	26%
High Pessimism / Low S.E.	Count	8	14	9	31
	Row %	26%	45%	29%	30%
	Total	32	21	52	105

Note: Chi-square = 3.9*; df*=6; *p*=0.6884

Survey item 4 asked whether students had ever used an e-textbook. Fewer than one-third of the students in any group had used one and about 20% or more did not even know what it was.

Survey items 5-15 presented students with two possible instructional activities and asked which one they would prefer. About 80% of every group preferred that part of the professor's lecture be over some material that was not in the textbook. Over 70% indicated preference for notes on PowerPoint slides in contrast to written on the blackboard. Most of the groups were split nearly 50/50 on whether they wanted the professor's lecture to include material that would not be on the test. The one exception was the high pessimism/high self-efficacy group, where 68% preferred that the lectures include the additional untested material. Nearly all the students (87-97% across the groups) preferred the professor to give examples of how the textbook material applies in real life.

Item 9 contrasted lecture over the textbook material with encouraging group discussion of the material. The majority of every group preferred group discussion, but that opinion was more prevalent among students with high self-efficacy (see Table 15).

Table 15

Response to Survey Item #9, by Pessimism and Self-Efficacy

		I would prefer the professor:		
		just lectured over the textbook material in some way.	encouraged group discussion of the material.	Total
Low Pessimism / High S.E.	Count	6	23	29
	Row %	21%	79%	28%
Low Pessimism / Low S.E.	Count	5	11	16
	Row %	31%	69%	16%
High Pessimism / High S.E.	Count	5	22	27
	Row %	19%	81%	26%
High Pessimism / Low S.E.	Count	11	19	30
	Row %	37%	63%	29%
	Total	27	75	103

Note: Chi-square = 3.2*; df*=3; *p*=0.3668

Item 10 contrasted lecture over textbook material with group activities related to the material. Preference for group activities ranged from 50% (high pessimism/low self-efficacy) to 59% (low pessimism/high self-efficacy) to 69% (both of the other two groups).

When students were asked for a preference between group discussion of the textbook material and group activities related to the material, students with low pessimism were more favorable toward group activities than those with high pessimism (see Table 16). The highest ratings for group activities came from students with low pessimism and low self-efficacy.

Table 16

Response to Survey Item #11, by Pessimism and Self-Efficacy

		I would prefer the professor:		
		encouraged group discussion of the textbook material.	had students do in-class group activities related to the textbook material.	Total
Low Pessimism / High S.E.	Count	11	17	28
	Row %	39%	61%	28%
Low Pessimism / Low S.E.	Count	3	11	14
	Row %	21%	79%	14%
High Pessimism / High S.E.	Count	15	12	27
	Row %	56%	44%	27%
High Pessimism / Low S.E.	Count	17	14	31
	Row %	55%	45%	31%
	Total	46	54	100

Note: Chi-square = 5.9*; df*=3; *p*=0.1177

Two-thirds or more of each group preferred group activities to individual activities, but students low in self-efficacy were at the higher end of the range (see Table 17).

Table 17

Response to Survey Item #12, by Pessimism and Self-Efficacy

		I would prefer the professor:		
		had students do in-class group activities related to the textbook material.	had students do individual presentations of projects related to the textbook material.	Total
Low Pessimism / High S.E.	Count	19	10	29
	Row %	66%	34%	28%
Low Pessimism / Low S.E.	Count	13	4	17
	Row %	76%	24%	16%
High Pessimism / High S.E.	Count	18	9	27
	Row %	67%	33%	26%
High Pessimism / Low S.E.	Count	26	5	31
	Row %	84%	16%	30%
	Total	76	28	104

Note: Chi-square = 3.3*; df*=3; *p*=0.3419

Most students preferred individual project presentations over group project presentations nearly 60/40 (see Table 18). The exception was the low pessimism/low self-efficacy group, where 75% of the students preferred presenting group project results.

Table 18

Response to Survey Item #13, by Pessimism and Self-Efficacy

		I would prefer the professor:		
		had students do individual presentations of projects related to the textbook material.	had students do group presentations of projects related to the textbook material.	Total
Low Pessimism / High S.E.	Count	17	12	29
	Row %	59%	41%	28%
Low Pessimism / Low S.E.	Count	4	12	16
	Row %	25%	75%	16%
High Pessimism / High S.E.	Count	7	19	26
	Row %	56%	44%	25%
High Pessimism / Low S.E.	Count	8	23	31
	Row %	55%	45%	30%
	Total	36	66	102

Note: Chi-square = 9.7*; df*=3; *p*=0.0216

Item 14 contrasted traditional classroom lecture with podcast lectures to be listened to online prior to class, thus freeing up class time for other interesting activities related to the material. Over 80% of high pessimism students preferred traditional lecture (see Table 19). Low pessimism students were somewhat more favorable towards the idea of podcasts, with those with low self-efficacy levels and low pessimism having the highest percentage (more than 40%).

Table 19

Response to Survey Item #14, by Pessimism and Self-Efficacy

		I would prefer the professor:		
		lectured over content in class.	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.	Total
Low Pessimism / High S.E.	Count	20	8	28
	Row %	71%	29%	28%
Low Pessimism / Low S.E.	Count	10	7	17
	Row %	59%	41%	17%
High Pessimism / High S.E.	Count	21	4	25
	Row %	84%	16%	25%
High Pessimism / Low S.E.	Count	22	9	31
	Row %	84%	16%	31%
	Total	73	28	101

Note: Chi-square = 3.3*; df*=3; *p*=0.3495

The final contrast item asked for student preferences for in-class quizzes over textbook material vs. online open-book quizzes that would be taken prior to class. A majority of all students chose the online format, but students with low self-efficacy preferred it at higher rates than did students with higher self-efficacy levels (see Table 20).

Table 20

Response to Survey Item #15, by Pessimism and Self-Efficacy

		I would prefer the professor:		
		in-class closed-book quizzes over textbook content.	online open-book quizzes over textbook content prior to the class period.	Total
Low Pessimism / High S.E.	Count	13	16	29
	Row %	45%	55%	28%
Low Pessimism / Low S.E.	Count	4	13	17
	Row %	25%	75%	16%
High Pessimism / High S.E.	Count	11	17	28
	Row %	39%	61%	27%
High Pessimism / Low S.E.	Count	9	22	31
	Row %	29%	71%	30%
	Total	37	68	105

Note: Chi-square = 2.9*; df*=3; *p*=0.4051

Discussion

The purpose of this study was to investigate the relationships among student dispositional optimism/pessimism, self-efficacy, and engagement preferences in a post-secondary academic context. Given the conceptual and theoretical 'common ground' of these constructs, a more definitive association might have been expected. However, the results of this study are somewhat ambiguous, but nonetheless interesting and indicate opportunities for additional investigation.

Previous research into dispositional optimism-pessimism seems to indicate that pessimists will be less successful when stressed, because they do not focus on solving the problem that is the source of their stress (Scheier et al., 1994). Similarly, low self-efficacy has been implicated in the failure of people to cope when they are dubious about their ability to

succeed in the effort (Bandura, 1977b). In this study, however, it appeared that either high self-efficacy or pessimism could be a driving force for students at particular times. Those students with lower self-efficacy might still be more likely to read the textbook or do online quizzes if they were more pessimistic. Perhaps their pessimism regarding their chances of performing successfully in classes (e.g., course grade) translated into some problem-solving behavior. In contrast, students who were low in both pessimism and self-efficacy were the least likely to read the text, the most likely to want the professor to stick to lecturing only over material that would be tested, and they preferred working in groups to working individually.

No single strategy emerged as the 'magic bullet' that would convince all students to read the textbook, although having shorter assignments did seem to be the most popular suggestion. Additionally, no in-class strategies / activities were overwhelmingly approved by students – there was always a group of students who did not side with the majority on lectures, group work, etc. Given this diversity of preferences across students, perhaps the most effect approach to instruction would be the utilization of a variety practices and strategies to encourage student engagement. In that way, regardless of an individual student's degree of pessimism or self-efficacy, they would find their preference accommodated at some point during the semester.

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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 *not* 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

SELF-EFFICACY FOR LEARNING FORM (SELF)

Circle a percentage to indicate your answer for each item.

1. When you miss a class, can you find another student who can explain the lecture notes as clearly as your teacher did?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It			Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

2. When your teacher*s lecture is very complex, can you write an effective summary of your original notes before the next class?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It			Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

3. When a lecture is especially boring, can you motivate yourself to keep good notes?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It			Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

4. When you had trouble understanding your instructor’s lecture, can you clarify the confusion before the next class meeting by comparing notes with a classmate?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It			Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

5. When you have trouble studying your class notes because they are incomplete or confusing, can you revise and rewrite them clearly after every lecture?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It			Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

6. When you are taking a course covering a huge amount of material, can you condense your notes down to just the essential facts?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

7. When you are trying to understand a new topic, can you associate new concepts with old ones sufficiently well to remember them?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

8. When another student asks you to study together for a course in which you are experiencing difficulty, can you be an effective study partner?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

9. When problems with friends and peers conflict with schoolwork, can you keep up with your assignments?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

10. When you feel moody or restless during studying, can you focus your attention well enough to finish your assigned work?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

11. When you find yourself getting increasingly behind in a new course, can you increase your study time sufficiently to catch up?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

12. When you discover that your homework assignments for the semester are much longer than expected, can you change your other priorities to have enough time for studying?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

13. When you have trouble recalling an abstract concept, can you think of a good example that will help you remember it on the test?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

14. When you have to take a test in a school subject you dislike, can you find a way to motivate yourself to earn a good grade?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

15. When you are feeling depressed about a forthcoming test, can you find a way to motivate yourself to do well?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

16. When your last test results were poor, can you figure out potential questions before the next test that will improve your score greatly?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

17. When you are struggling to remember technical details of a concept for a test, can you find a way to associate them together that will ensure recall?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely	
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

18. When you think you did poorly on a test you just finished, can you go back to your notes and locate all the information you had forgotten?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely	
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

19. When you find that you had to *cram* at the last minute for a test, can you begin your test preparation much earlier so you won*t need to cram the next time?

Definitely Cannot Do it			Probably Cannot		Maybe Can		Probably Can Do It		Definitely	
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

From: Zimmerman, B., & Kitsantas, A. (2007). Reliability and validity of Self-Efficacy for Learning Form (SELF) scores of college students. *Journal of Psychology, 215*(3), 157-163. Retrieved from PsycARTICLES database.

Appendix C

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 <u>dis</u>agree a LITTLE**	**I <u>dis</u>agree 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.