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Kimberly Kinsey Mannahan

Jennifer P. Gray

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Abstract

The goal of this study was to explore the relationship between students' perceptions of the link between personal effort and academic performance to promote effective pedagogy, contributing to the potential for increased retention/progression/graduation rates. Based on Treisman's (2013) assertion that students do not connect hard work with success, the researchers hypothesized that students would fail to connect the level of effort (as measured by motivation, effort, attendance, attention/engagement, and reading the textbook) they invested in a course with performance in the course (as measured by expected course grade). A mixed-methods survey containing both quantitative and qualitative measures of effort was administered before and after the first graded course assignment in each class. Results supported our hypotheses, but not exactly as expected. Students connected hard work with success in the first administration of the survey; however, the link between personal effort and academic performance disappeared in the second administration of the survey. Qualitative findings were explored to further illuminate students' phenomenological experiences in the classroom.

Keywords

Students, Effort, Performance

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Exploring Students' Perceptions of the Connection Between Personal Effort and Academic Performance

Kimberly Kinsey Mannahan
College of Coastal Georgia
Brunswick, GA

Jennifer P. Gray
College of Coastal Georgia
Brunswick, GA

Abstract: The goal of this study was to explore the relationship between students' perceptions of the link between personal effort and academic performance to promote effective pedagogy, contributing to the potential for increased retention/progression/graduation rates. Based on Treisman's (2013) assertion that students do not connect hard work with success, the researchers hypothesized that students would fail to connect the level of effort (as measured by motivation, effort, attendance, attention/engagement, and reading the textbook) they invested in a course with performance in the course (as measured by expected course grade). A mixed-methods survey containing both quantitative and qualitative measures of effort was administered before and after the first graded course assignment in each class. Results supported our hypotheses, but not exactly as expected. Students connected hard work with success in the first administration of the survey; however, the link between personal effort and academic performance disappeared in the second administration of the survey. Qualitative findings were explored to further illuminate students' phenomenological experiences in the classroom.

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Introduction

The goal of this study was to explore the relationship between students' perceptions of the link between personal effort and academic performance to promote effective pedagogy, contributing to the potential for increased retention/progression/graduation rates. Nationwide, retention, progression, and graduation (RPG) figures are often intrinsically connected to funding schemes for higher education institutions (Powell, 2013; Swart, Duncan, & Hall, 2013). Student failures are no longer the responsibility of the student alone; therefore, researchers are working to identify best practices to ensure student success. Researchers have explored top-down initiatives that focus on instruction innovations, such as flipped classrooms (Berrett, 2012; Lage, Platt, & Treglia, 2000) and flexible evaluation systems (Pacharn, Bay, & Felton, 2012), but these innovations rarely look deeply at what students think about classroom instruction and experience. In light of the paucity of research focused on student opinion, the current research project was designed to investigate students' perceptions of the link between their personal effort and their academic performance (as measured by expected course grade). If researchers can understand the students' phenomenological classroom experiences, they can better sculpt classroom instruction to create a more successful and meaningful learning experience for students.

In the 1990s, Treisman researched ways to contribute to student success in math courses and increase the retention rate for his institution. Treisman did not solely collect research data; he used the data to transform the educational practices first at his own institution and then at

institutions across the nation (Fullilove & Treisman, 1990; Treisman & Surles, 2001; Treisman, 1992). Ultimately, Treisman (2013) emphasized that students must connect hard work to success, but he questioned whether students actually make this connection. We designed our study to investigate empirically this question.

At first glance, it seems that personal effort and academic performance are intrinsically connected; however, research indicates that the relationship is much deeper, more complex, and “often contradictory” (Rich, 2006, p. 2; Khachikian, Guillaume, & Pham, 2011; Khachikian & Guillaume, 2002). In fact, many students “over-predict” grades because “they are too optimistic at the beginning” of their course, which results in self-deception about their abilities and dedication to their coursework (Khachikian, Guillaume, & Pham, 2011). Haynes, Ruthig, Perry, Stupnisky, and Hall (2006) suggest this self-deception among students may be dangerous as it has the potential to affect students’ adaptability and future academic success. They note that, “the adaptiveness of the student’s highly optimistic expectations may largely depend on his or her accompanying cognitions, in particular, underlying causal attributions and perceptions of control” (p. 756). In other words, students construct an individual narrative to explain the causes of their successes and failures, often basing those explanations on the amount of control they perceive they have in the particular situation. Therefore, the question becomes: how much control do students perceive they have over their academic success? And, does their perception of control include personal effort?

Currently the literature offers no clear connection between perceptions of personal effort and academic performance; however, the above-mentioned research highlights the importance to applying Treisman’s strategy of student opinion-based study to understand better the students’ phenomenological experiences. Rose (2012) conducted a large qualitative study to understand

how students view success in college, especially those students who have historically not achieved. His findings indicated, “[w]hat you see depends on where you sit” (p. 115). In other words, he called for a more student-focused perspective on research that investigates what students experience from their point-of-view. He emphasized that more phenomenological research should be conducted to better understand the unique experiences faced by college students.

The current study is designed to investigate the students’ perceptions of the connection between personal effort and academic performance. We measured personal effort with student self-reported items focusing on questions relating to motivation, effort, attendance, attention/engagement, and reading the textbook. Academic performance was measured by expected course grade.

Our hypotheses included:

H1: Students would not connect personal effort to academic performance.

H2: Students would overestimate their academic performance, resulting in high grade predications.

Method

After receiving Institutional Review Board approval, the two courses from which the sample would be taken were selected. These two courses were selected because most students at the institution take these two subjects (Psychology and English) at some point in their academic career, usually in their first year. The two specific sections used were convenience samples because the principle investigators (PIs) were teaching them. The PIs entered each other’s classrooms on the day of the administration, invited class members to participate in the study, and distributed an informed consent form. After reading and signing the form, participants

received the survey instrument. After completing the survey, the PIs collected the survey instrument. The study involved two administrations of the same survey instrument in order to capture students' perceptions upon first entering the course and after the first graded assignment was returned. The first administration (Part A) occurred during the first week of class, and the second administration (Part B) occurred after the first test/paper was graded and returned to the participants.

Participants

Part A. One hundred students were recruited for participation from a small public Southeastern college. Sixty-six students were enrolled in Introductory Psychology (PSYC 1101) and thirty-four students were enrolled in First-Year Writing (ENGL 1101) during the Spring 2013 semester. The average age of participants was 20.1 years, with 61% female and 39% male. Twenty-six percent reported being first-generation college students. Sixty-one percent reported Caucasian, 29% African American, 4% Hispanic, and 6% reported Other. In terms of socioeconomic status (SES), 11% reported lower class, 80% middle, 7% upper, and 2% reported other. These demographics are reflective of the general population of the college.

Part B. Sixty-nine students participated in the second administration of the study, which was conducted after the first paper or test was returned. The decrease in number was due to student withdrawals from the courses, which was typical of these courses. Because the survey was anonymous, there was no way to pair samples between Part A and Part B. Fifty-five students were enrolled in Introductory Psychology (PSYC 1101) and fourteen students were enrolled in First-Year Writing (ENGL 1101) during the Spring 2013 semester. The average age of participants was 20.02 years, with 63% female and 34% male. Twenty-five percent reported being first-generation college students. Sixty percent reported Caucasian, 26% African

American, 1% Hispanic, and 2% reported Other. In terms of socioeconomic status (SES), 8% reported lower class, 84% middle, and 4% reported upper class. The demographics are still reflective of the general population of the college and are similar to Part A.

Instrument

A 24-item survey instrument was created to measure students' perceptions of the link between personal effort and academic performance (See Appendix A). Cronbach's Alpha reliability analyses indicated that both administrations of the survey had good internal consistency: Part A: ($\alpha = .78$) and Part B: ($\alpha = .84$). There were four items on the instrument that were specifically used to measure personal effort and academic performance, and these four items had good internal consistency as well: Part A ($\alpha = .81$) and Part B ($\alpha = .90$). The instrument also contained demographic items, such as age, gender, SES, and student classification, followed by questions about caregivers' attitudes toward college and self-assessments of reading and writing abilities. Other questions asked participants what grade they expected to earn in the course, and how sure they were they would earn that grade. Six Likert-type items measuring the extent to which their grade in the course would be due to different behaviors or attitudes, with 1 representing "Strongly Agree" and 5 representing "Strongly Disagree." The questions focused on students' perceptions of the connection between personal effort and academic performance: for example, "Your grade in this course will be a direct result of the effort you put into the course." Two qualitative items were intermingled with the quantitative questions. These qualitative questions measured students' understandings of "effort" in an educational setting and identified their perceptions concerning confidence in their abilities in the classroom: for example, "Why do you expect to earn this grade in this course?" and "List at least two specific things you will do to earn this grade."

Results

In order to analyze the results from this mixed-methods study, two approaches were used: the statistical package SPSS and thematic analysis. The following sub-sections delineate the quantitative results from Parts A and B as well as the qualitative data analysis procedures and results for Parts A and B.

Part A Quantitative Results

Part A results revealed significant differences between the group of students who expected to earn an A and the group of students who expected to earn a B related to four dependent measures of classroom behaviors (motivation, effort, attendance, and attention/engagement). Specifically, one-way analysis of variance (ANOVA) showed that students who expected to earn an A ($M = 1.41$, $SD = .53$) were significantly more likely than the students who expected to earn a B ($M = 1.78$, $SD = .75$) to attribute their expected course grade to their personal motivation level, $F(1,98) = 8.10$, $p = .005$. Regarding effort, one-way ANOVA showed that students who expected to earn an A ($M = 1.37$, $SD = .67$) were significantly more likely than the students who expected to earn a B ($M = 1.78$, $SD = 1.04$) to attribute their expected course grade to their effort put into the course $F(1,98) = 5.77$, $p = .018$. One-way ANOVA for attendance showed that students who expected to earn an A ($M = 1.51$, $SD = .68$) were significantly more likely than the students who expected to earn a B ($M = 1.94$, $SD = 1.07$) to attribute their expected course grade to their class attendance $F(1,98) = 4.96$, $p = .028$. Regarding attention/engagement, one-way ANOVA showed that students who expected to earn an A ($M = 1.35$, $SD = .62$) were significantly more likely than the students who expected to earn a B ($M = 1.81$, $SD = 1.02$) to attribute their expected course grade to their attention/engagement in class $F(1,98) = 7.71$, $p = .007$. And, no significant difference was found between those

students who expected to earn an A in the course and those who expected to earn a B in the course with regard to reading the textbook.

Part B Quantitative Results

Part B results revealed significant differences between the group of students who expected to earn an A, and the group of students who expected to earn a B related to only two dependent measures of classroom behaviors (motivation and attendance). Two students reported expecting to earn a C, but they were eliminated from these analyses due to group size.

Specifically, one-way ANOVA showed that students who expected to earn an A ($M = 1.29$, $SD = .80$) were significantly more likely than the students who expected to earn a B ($M = 1.94$, $SD = .99$) to attribute their expected course grade to their personal motivation level, $F(2,66) = 6.44$, $p = .003$. Regarding attendance, one-way ANOVA showed that students who expected to earn an A ($M = 1.53$, $SD = .75$) were significantly more likely than the students who expected to earn a B ($M = 2.21$, $SD = 1.36$) to attribute their expected course grade to their class attendance $F(2,66) = 4.36$, $p = .017$. No significant difference was found between the students who expected to earn an A in the course and those who expected to earn a B in the course with regard to reading the textbook. There were no significant differences between the group of students who expected to earn an A, and the group of students who expected to earn a B related to the two dependent measures of classroom behaviors. For students expecting to earn an A, the effort was ($M = 1.56$, $SD = .93$) and to earn a B, the effort was ($M = 1.85$, $SD = 1.28$) with $F(2,66) = .65$, $p = .527$. In terms of students who expected to earn an A regarding attention/engagement ($M = 1.53$, $SD = .90$) and in terms of earning a B, the attention/engagement was ($M = 2.03$, $SD = 1.29$) with $F(2,66) = 1.79$, $p = .176$.

Qualitative Data Analysis Procedure

Qualitative “[a]nalysis is predominantly interpretive through thematic approaches and deals with meanings, descriptions, values and characteristics of people and things” (Grbich, 2007, p. 195). Preliminary steps regarding the two qualitative questions in the survey involved “active reading” to identify and examine words, phrases and topics used by participants (p. 29). The researchers transcribed the responses to the qualitative questions, reviewed them individually over three separate readings across several days, and created a list of terms that appeared in the responses. For example, anytime a student used the term, “textbook,” it was listed and counted. Based on this analysis and what words, phrases, and topics it identified, thematic analysis was performed by grouping the data into chunks based on what was noted and repeated. Thematic analysis occurs in “a process where data are segregated, grouped, regrouped and relinked in order to consolidate meaning and explanation prior to display” (p. 21). The thematic analysis was a way to “focus on repeated words or phrases” that represented the collective responses to the qualitative-based questions in the survey (p. 32).

Part A Qualitative Results

Responses to the qualitative prompt: “List at least two specific things you will do to earn this grade” included the following themes: doing homework, studying, loving the subject, liking the teacher, avoiding procrastination, reading, finishing assignments, and taking notes. The most repeated theme was “study,” which was mentioned 61 times.

Part B Qualitative Results

Responses to the prompt: “List at least two specific things you will do to earn this grade” included the following themes: doing homework, studying, reading, finishing assignments, and taking notes. The most repeated theme was “study,” which was mentioned 48 times.

Discussion

Our quantitative results were in line with Triesman's (2013) assertion that students fail to connect hard work with success. At the beginning of the course, students associated four classroom behaviors with their expected grades: motivation, effort, attendance, and attention/engagement. However, after the first major test or paper was returned, students failed to connect two of the four classroom behaviors (effort and attention/engagement) with their expected course grade. In other words, within the span of one month, the students disassociated their course grade from their own effort and attention/engagement levels. These findings were particularly surprising for two reasons: (1) the short amount of time between the two administrations of the instrument indicated that students are willing to "give up" after only a few weeks, and (2) the fact that many of the students located success outside of their own control implied that students may think their personal effort does not matter. Drawing these abrupt, definitive conclusions within one month may demonstrate a lack of resilience, learned helplessness, or apathy on the students' part, but these are empirical questions for future studies.

Although this study was designed to explore the relationship between personal effort and academic performance, other important findings emerged. For example, when asked to predict their course outcome, the students overestimated their course grade. Out of 100 students in Part A and 69 in Part B, only 2 students predicted earning a grade lower than a B. The projected class average based on the students' predictions would have been 92%. However, at the end of the term, only 16 students earned As and 41 students earned Bs, with a class average of 60%. These findings support Khachikian, Guillaume, and Pham's (2011) assertion that students may be "too optimistic at the beginning" of a term (p. 595). Haynes, Ruthig, Perry, Stupnisky, and Hall (2006) indicated that "overly optimistic" students can be "problematic" (p. 772), especially in

unfamiliar situations such as the transition from high school to college. Their research is particularly relevant to our study as the current sample consisted of introductory courses (ENGL 1101 and PSYC 1101), which are usually populated by first-year students.

“Study” was the most repeated word mentioned in response to the qualitative question: “List two specific things you will do to earn this grade.” This finding indicated that students were aware that they are supposed to study in order to succeed in a course. However, since the relationship between effort and grade disappeared after the second administration of the instrument, questions emerge about whether students are doing what they say they should be doing (studying). If they are no longer placing emphasis on effort, what does studying mean to them? This question may be useful in the design of study-skill programs because students may not know they need to learn how to study. Some students have difficulty realizing “a problem exists and [do] not seek help in time to gain benefits” (Ofori & Charlton, 2002, p. 514). Because some students tend to use study-skill interventions “too late to effect remedies,” interventions need to occur early in the course (p. 513).

Because we did not require students to place identifying information on Part A and Part B of the study, we were unable to conduct paired-samples data analyses. Future studies could use a coding system to simultaneously ensure anonymity and allow researchers to pair samples in the analysis for a more thorough understanding of individual phenomenological experiences across administrations of the instrument. Since this study only spanned one semester with first-year students, it would be interesting to perform longitudinal research with the same participants until graduation to investigate how their perceptions of personal effort and academic performance shift throughout their undergraduate career.

Another direction for future research would be to examine personality differences among students that may contribute to different perceptions of the link between personal effort and academic performances. Ahadi and Narimani (2010) demonstrated the importance of examining the “role of personality traits in educational performance” (p. 53). Therefore, looking at personality measures, such as the Big Five personality traits (Costa & McCrae, 1989), dispositional optimism (Haynes, Ruthig, Perry, Stupnisky, & Hall, 2006; Thompson & Gaudreau, 2008), and narcissism (Farwell & Wohlwend-Lloyd, 1998) may also provide more in-depth knowledge about students’ perceptions regarding the link between personal effort and academic performance. By extracting the nuances of students’ phenomenological experiences in the classroom, practitioners can better help their students succeed. The more successful a student is in the classroom, the more potential there is for retention, progression, and graduation.

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Appendix A
Survey Instrument

Age: _____

Gender: ___ Male
 ___ Female
 ___ Other (please specify) _____

Ethnicity: ___ African-American
 ___ Asian-American
 ___ Biracial
 ___ Caucasian
 ___ Hispanic/Non-White
 ___ Native-American
 ___ Pacific-Islander
 ___ Other (please specify) _____

How would you describe the socioeconomic status you were raised in?

_____ Lower Class
_____ Middle Class
_____ Upper Class
_____ Other (please specify)

Are you the first person in your immediate family to go to college? ___ No ___ Yes

Describe your primary caregiver's/caregivers' attitude toward your attending college? (check box and elaborate)

_____ Supportive because

_____ Indifferent (didn't care) because

_____ Unsupportive because

Are you a returning student (do you have prior experience in college)? ____ No ____ Yes

If yes, please describe

What is your classification?

____ Freshman

____ Sophomore

____ Junior

____ Senior

____ Non-degree seeking or ____ Dual Enrollment

Did your primary caregiver(s) read to you as a child? ____ No ____ Yes

Do you enjoy reading? ____ No ____ Yes

When is the last time you read an entire book?

This month

2-4 months

5-12 months

More than a year

Never

How would you rate your reading abilities?

Excellent

Good

Average

Weak

Poor/Nearly Nonexistent

How would you rate your writing abilities?

Excellent

Good

Average

Weak

Poor/Nearly Nonexistent

Describe the style in which you were raised:

____ Authoritarian (rigid, strict, cold, lacking communication)

____ Permissive (laid back, let you get away with a lot, not present)

____ Indulgent (gives you everything you want, wants to be your best friend)

____ Authoritative (clear rules, firm, loving, lots of communication)

What grade do you expect to earn in this course? (circle one)

A

B

C

D

F

W

How sure are you that you will earn this grade?

- ☐ No doubt!
☐ Pretty sure
☐ Sure
☐ Somewhat sure
☐ Not sure

Why do you expect to earn this grade in this course?

List at least two specific things you will do to earn this grade.

1.

2.

To what extent are you motivated to earn this grade?

1	2	3	4	5
Extremely	Somewhat motivated			Not at all

Your grade in this course will be a direct result of your natural abilities.

1	2	3	4	5
Extremely	Somewhat motivated			Not at all

Your grade in this course will be a direct result of the effort you put into the course.

1	2	3	4	5
Extremely		Somewhat motivated		Not at all

Your grade in this course will be a direct result of attending class.

1	2	3	4	5
Extremely		Somewhat motivated		Not at all

Your grade in this course will be a direct result of paying attention and being an engaged participant in class.

1	2	3	4	5
Extremely		Somewhat motivated		Not at all

Your grade in this course will be a direct result of reading your textbook.

1	2	3	4	5
Extremely		Somewhat motivated		Not at all