

# RAPPORT, PERCEPTIONS OF EFFECTIVENESS, AND COURSE GRADE EXPECTATIONS, A CORRELATIONAL ANALYSIS

By

ERIN YEZBICK \*

JEREMY I. TUTTY \*\*

\* Communications Instructor, Baker College of Flint, USA.

\*\* Dissertation Chair, University of Phoenix, and Senior Instructional Design Analyst, Rio Salado College, Tempe, USA.

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## ABSTRACT

The purpose of this study was to determine whether a relationship exists between student/instructor rapport, student perceptions of instructor effectiveness, and course grade expectations. Previous studies have determined that rapport affects motivation (Bergström, 2010; Frisby, Berger, Burchett, Herovic, & Strawser, 2014; Legg & Wilson, 2009), perceptions of teacher effectiveness (Giles, 2011; Kozub, 2010), and evaluation scores (Barth, 2008; Kowai-Bell, Guadango, Little, & Ballew, 2012). Student ratings of instruction are the most widely used measure of college teaching effectiveness. Determining what causes one subject to boost a student's rapport with the instructor might help educators apply that knowledge to other subjects. The study was conducted as quantitative research using a non-experimental correlational research design. Data were collected using two instruments, the Professor-Student Rapport Scale and the IDEA Student Ratings of Instruction Short Form. The data were analyzed using Pearson product-moment correlation coefficient (Pearson's  $r$ ) and Spearman's rank-order correlation coefficient (Spearman's  $r_s$ ). The study found statistically significant positive correlations between Professor-Student Rapport and Instructor Evaluation and between Professor-Student Rapport and Student Expected Course Grade.

Keywords: Perceptions, Rapport, Correlation, Freshman, General Education, Expectations.

## INTRODUCTION

The importance of student satisfaction on learning is quite clear (Awang & Ismail, 2010; Barth, 2008; Delucchi, 2000; Ellsworth, 1993), and one facet of overall student satisfaction is satisfaction with and enjoyment of one's instructor. Determining what causes one subject to boost a student's rapport with the instructor might help educators apply that knowledge to other subjects. Further, examining if rapport contributes to higher student perceptions of instructor effectiveness and/or student course grade expectations is the first step in finding what makes the difference in satisfaction between subjects.

It is also important to consider the role of the instructor. Teachers play a vital role in developing a productive learning environment, as evidenced by literature on the subject (Chickering, 2006; Del Guercio, 2011; Drouin & Vartanian, 2010; Frisby et al., 2014; Giles, 2011; Malouff &

Hall, 2012; Starcher, 2011; Young, Horan, & Frisby, 2013; Zhou, 2012). However, no research has been done that has determined the relationship of rapport on student perceptions of instructor effectiveness and student course grade expectations in students enrolled in freshman general education courses. Finding the extent of that role was the focus of this study.

### *Student Expectations*

Researchers note the importance of student expectations, ownership of learning, and motivation on student learning outcomes (Awang & Ismail, 2010; Chan, Graham-Day, Ressa, Peters, & Konrad, 2014; Estepp & Roberts, 2013; Frisby & Myers, 2008; Garcés-Ozanne & Sullivan, 2014). With clear data supporting the idea that non-academic factors influence student perceptions of instructor effectiveness and student course grade expectation, determining if rapport is one of those factors was a

worthwhile endeavor. Research has revealed “a direct relationship between perceived instructor-student rapport and affective learning, satisfaction, and state motivation” (Frisby & Myers, 2008). In his phenomenological study on relationships in the classroom, Giles (2011) found that teacher/student relationships had the potential not only to affect a student's experience in the course, but to alter the trajectory of their academic career. Additionally, Awang and Ismail (2010) sought to find what students consider most important in their education. They stated:

As one would expect, students placed a high level of importance or expectation on the knowledge of lecturers in their field, content of the program, good variety of courses provided in the program, excellence [sic] learning outcome of the program and fairness of lecturers in their treatment of students (para. 7).

### ***Factors/Non-Factors in Rapport Building***

Frieberg and Lamb (2009) conducted extensive interviews to determine why students love school and discovered that low income students enjoyed the educational experience based on four distinct areas—social-emotional emphasis, school connectedness, positive climate, and self-discipline. They concluded, “Person-centered classrooms and their management approaches allow teachers and students to see one another as people. Students take on responsibilities and have responsible freedom and choice within the classroom. Teachers establish caring interpersonal relationships with students” (Frieberg & Lamb, 2009, p. 104).

In a similar study, Delucchi (2000) measured instructor likability, student perceptions of learning, and teacher ratings, and found a correlation between rapport and perceived learning. “[H]olding constant the effects of all other independent variables, a one point increase in [likability] produces a .12 decrease in perceived learning. In other words, the more students like an instructor, the less learning they report” (pp. 224-225). Delucchi concluded, “Instructor likability, while exerting an appreciable negative effect on perceived learning, has a large positive effect on overall ratings of teaching ability. As a predictor of overall ratings, the magnitude of the likability

effect far exceeds that for effort and perceptions of learning” (pp. 227-228).

While establishing the importance of rapport on teacher evaluation scores is important to this study, it is also beneficial to determine what does not affect evaluation scores. In his study on evaluation, Barth (2008) stated, “An urban legend... says that the easiest way to inflate these instructor ratings and thus positively affect the instructor's annual evaluation is to reduce standards and inflate grades” (p. 45). However, his findings showed that the overall rating of an instructor was based more on the quality of instruction rather than the ease of the class (Barth, 2008, p. 45).

While students can contribute to the learning environment, these studies make clear that the tone is set by the instructor. Not only does the instructor affect the academic environment, he or she also contributes to the personal aspect.

### ***Student Course Grade Expectations***

Garces-Ozanne & Sullivan (2014) conducted a study on 196 Economics I students to determine what, if any, correlation existed between student course and grade expectations and their overall course grade and found that, “though grade expectations and behaviour at the mid-semester changed slightly from the initial survey, we find that students' grade expectations remain statistically different from actual grades received” (pp. 95-96).

Bates & Kaye (2014) determined one outside influence that affects student expectations. They found that students' expectations for their own performance increased when their education cost increased, as did their expectations for services provided by the institution. While the available data on student course grade expectations do not address the effect of rapport, the findings indicate that grade expectations can be influenced by external variables, an important distinction for this study.

### ***Motivation and Rapport***

Instructors have a number of ways they can build rapport and enhance motivation. Legg and Wilson (2009) discovered that rapport building can actually begin

before the first classroom session with an introductory e-mail. They premised that “a welcoming e-mail might offer an easy way for professors to communicate immediacy to their students before they even enter the classroom” (p. 205). Their findings supported this. “As data were collected over the semester, it became apparent that many more students who did not receive the e-mail were withdrawing from the course compared to those who did receive the e-mail” (Legg & Wilson, 2009, p. 209). Pre-course contact resulted in a boost in motivation and rapport with the instructor, noted by statistically significant differences in retention. “Analyses confirmed that a positive, welcoming e-mail sent before the first day of school significantly enhanced student motivation, attitude toward the instructor, and perceptions of the course” (Legg & Wilson, 2009, p. 209). Explaining why, many students also seemed surprised to receive an e-mail from an instructor and had never experienced this form of introduction from any previous instructors. One student expressed, ‘I started to like you and made up my mind that you would be an awesome professor before I met you,’ and another student wrote, ‘It gave [the professor] a sense of likability that I did not have with my other professors’ (Legg & Wilson, 2009, p. 210).

In their article “Influence of Motivational Design on Completion Rates in Online Self-Study Pharmacy-Content Courses,” Pittenger and Doering (2010) found a similar outcomes from student/instructor email. They examined data from four pharmacological courses taught online to determine why those courses had such high completion rates. While several other factors contributed to the high rates, regular correspondence with the instructor was a factor. “These weekly emails, while not personal messages, functioned as a form of dialog and negotiation. Students also had the option of interacting with the instructor and fellow students through discussion board postings and/or email with the instructor” (Pittenger & Doering, 2010, p. 289). Pittenger and Doering (2010) also stated, “This relationship between student control of course schedule and teacher-student interaction has been described as a relationship between power and communication; the amount of two-way communication within a course

determines the balance of power between teacher and student” (p. 289). As stated earlier, when students feel they share in their learning, they are more likely to be engaged in the process.

## 1. Purpose of this Study

The purpose of this study is to determine if perceived rapport positively affects student perceptions of instructor effectiveness in freshman general education classes and/or their expected overall grade in the course. The research questions for this study are:

- Is there a relationship between student/instructor rapport, as measured by the Professor-Student Rapport Scale (Wilson et al., 2010), and student perceptions of instructor effectiveness, as measured by the IDEA Student Ratings of Instruction Short Form (IDEA Education, 2002), in freshman general education courses at a career college in the Great Lakes Region of the United States?
- Is there a relationship between student/instructor rapport, as measured by the Professor-Student Rapport Scale (Wilson et al., 2010), and students' expectations of their overall course grade in freshman general education courses at a career college in the Great Lakes Region of the United States?

## 2. Methodology

### 2.1 Design

A quantitative, non-experimental correlational research design was used for this study.

The non-experimental correlational research design allowed the researcher to determine if a correlation existed between student/instructor rapport and teacher evaluation scores, as measured by Professor-Student Rapport Scale and the IDEA Student Ratings of Instruction Short Form. The independent variable was Student/Instructor rapport. The dependent variable was student perceptions of instructor effectiveness.

### 2.2 Participants and Setting

One hundred sixty-five students participated in this study. Of the 165 participants, 36 participants failed to fully complete either of the study instruments. An additional 39 participants did not complete both study instruments. The

omission of these participants resulted in the inclusion of 92 participants in the data analysis of RQ1, representing a 56% completion rate, and 129 participants in the analysis of RQ2 for a 78% completion rate.

This researcher selected the population for this study from general education courses (comprising sections of English 091, English 098, English 101, English 102, Writing 115, Speech 201, Math 091, Math 099, Psychology 101, and Psychology 111) at a career college in the Great Lakes Region of the United States during the Summer 2015 quarter.

## 2.3 Instrumentation

### 2.3.1 Professor-Student Rapport Scale

Although the Professor-Student Rapport Scale is a privately controlled instrument, this researcher requested and received permission from the primary author to use it in connection with this study (J.H. Wilson, personal communication, March 11, 2013).

Items on the rapport scale were generated from comments provided by a preliminary group of college students. Fifty-one students (13 men, 38 women) provided input during an upper-level class held by one of the authors. To avoid influencing responses, the professor simply defined rapport as a relationship of mutual trust and liking. Students were instructed to provide, in their own opinion, what constitutes professor-student rapport. They were asked to think of what establishes or creates rapport with professors and to think of how they would assess or measure rapport. Item generation yielded 44 items that were formatted with responses ranging from 1 (strongly disagree) to 5 (strongly agree) (Wilson et al., 2010, pp. 247-248). The Professor-Student Rapport Scale has been used in numerous studies (e.g., Estep & Roberts, 2013; Rogers, 2015; Ryan, Wilson, & Pugh, 2011; Wilson & Ryan, 2013; Wilson et al., 2010).

An exploratory principle component analysis was performed on the original 44 items of the Professor-Student Rapport Scale to establish content validity. Based on this analysis and the a priori hypothesis that the instrument was unidimensional, a single factor was rotated using a Varimax Rotation procedure. The rotated

solution yielded one interpretable factor, the loading of which confirmed the instrument design. Of the 44 original items, 39 reached a minimum loading value of .50. The measured Cronbach's reliability coefficient for the 39 Professor-Student Rapport Scale items in this study was .97. These findings are consistent with published data regarding the Professor-Student Rapport Scale, as "the rapport scale displayed high internal consistency as evidenced by a strong Cronbach's alpha ( $\alpha = .89$ )" (Ryan et al., 2011, p. 138).

### 2.3.2 IDEA Student Ratings of Instruction Short Form

This study utilized data collected by means of the IDEA Student Ratings of Instruction Short Form, created by IDEA Education (2002). A confirmatory factor analysis was conducted on the IDEA Student Ratings of Instruction Short Form instrument following administration. Based on analysis of the IDEA instrument and the a priori hypothesis that the instrument was two-dimensional, two factors were rotated using a Varimax Rotation procedure. The rotated solution yielded two interpretable factors, the loading of which confirmed the instrument design. The measured Cronbach's Alpha for this administration was .95. These findings are consistent with published data regarding the IDEA Student Ratings of Instructor Short Form.

## 2.4 Procedures

In the summer of 2015, the college administered the Professor-Student Rapport Scale in weeks 6 and 7, and the IDEA Student Ratings of Instruction Short Form in week 9 (the final week of the term) to each class in the study. Data were collected at separate times and with a two to three week break in between. The evaluations were anonymous, but each class was tracked individually. Signed consent forms for all participants in the study were collected before administering each instrument.

### 2.4.1 Data Collection

The procedures for collecting data were as follows:

- In the first week of the term, the dean of general education sent an email to all instructors whose classes would be used for the study requesting date and time preferences for data collection.
- During the sixth and seventh weeks of the term, a

representative of the college visited each class to administer the Professor-Student Rapport Scale. This representative was trained in correct data collection procedures by means of CITI training in Social and Behavioral Responsible Conduct of Research. The representative:

- (i) Read introduction script for the Professor-Student Rapport Scale.
  - (ii) Distributed consent form for the Professor-Student Rapport Scale and contact information to participating students.
  - (iii) Collected consent forms.
  - (iv) Distributed Professor-Student Rapport Scale to participating students.
  - (v) Collected Professor-Student Rapport Scale and demographic survey.
- During the ninth (final) week of the term, a representative of the college visited each class to administer the IDEA Student Ratings of Instruction Short Form:
    - (i) Read introduction script for the IDEA Student Ratings of Instruction Short Form.
    - (ii) Distributed consent form for the IDEA Student Ratings of Instruction Short Form and contact information to participating students.
    - (iii) Collected consent forms.
    - (iv) Distributed IDEA Student Ratings of Instruction Short Form to participating students.
    - (v) Collected IDEA Student Ratings of Instruction Short Form and demographic survey.

### 3. Results

Data were analyzed using a Pearson product-moment correlation for student/instructor rapport and teacher evaluation scores, and Spearman's rank-order correlation coefficient for student/instructor rapport and expected course grades. Correlational coefficients were computed for the mean Professor-Student Rapport Scale score with the mean IDEA Student Ratings of Instruction Short Form score, and the mean Professor-Student Rapport Scale score with student-reported expected course grade.

Mean scores were used rather than sum totals due to the varying number of items of each scale. In order to conservatively control for type 1 error, a p value of less than .05 was required for significance. Means and standard deviations among the study variables are presented in Table 1.

### 3.1 Rapport and Teacher Evaluation

The population for RQ1 was  $N = 129$ , which, according to Gall et al., (2007), exceeded the required minimum (66) for a medium effect size with statistical power of .7 at the .05 alpha level. This researcher used as catter plot (Figure 1) to determine whether the data violated assumptions of outliers, linearity, and bivariate normality. None of the values are outliers, as demonstrated in Figure 1. Using the same scatterplot, this researcher confirmed the assumption of linearity, that the data generally follow the best fit line. Finally, this researcher confirmed the assumption of bivariate normality. By examining the data points on the scatterplot, this researcher was able to determine that the data are elliptically clustered, which satisfies the bivariate normality assumption (Gall et al.,

Sl. No	Variable	N	M	SD
1	Professor-Student Rapport	129	4.11	.74
2	IDEA	92	3.56	.93
3	Expected Grade	129	4.08	1.13

Table 1. Descriptive Statistics

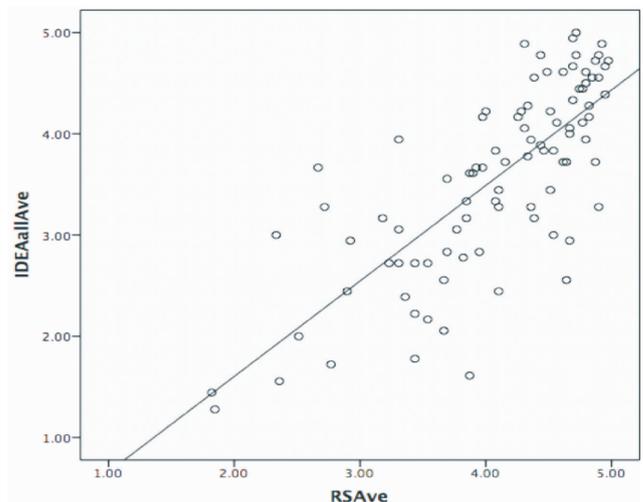


Figure 1. Professor-Student Rapport Scale/IDEA Short Form Assumptions Scatterplot

2007).

Analyses revealed a statistically significant positive correlation between Professor-Student Rapport and Instructor Evaluation ( $n = 129, r = .76, p < .01$ ) (see Table 2). The Pearson correlation coefficient of ( $r = .76$ ) represent a large effect size. The coefficient of determination ( $r^2$ ) indicates that nearly 58% of the variance in instructor evaluation score is accounted for by its linear relationship with student reported instructor rapport.

### 3.2 Rapport and Grade Expectation

The population for RQ2 was  $N = 92$ , which, according to Gall et al. (2007), exceeded the required minimum (66) for a medium effect size with statistical power of .7 at the .05 alpha level (p. 145). In the case of Null Hypothesis 2, the Grade Expectations data points are ordinal, and the distribution of student expected grade revealed a departure from normality as demonstrated in Figure 2. A Shapiro-Wilks test for Normality ( $W = .779, p < .001$ ) was significant. "The Shapiro-Wilks test for normality is designed to detect all departures from normality. The test rejects the

		IDEA	P-S
IDEA	Pearson Correlation	1	.762**
	Sig. (2-tailed)		.000
P-S	Pearson Correlation	.762**	1
	Sig. (2-tailed)	.000	

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 2. Pearson Product-Moment Correlation Coefficient Results

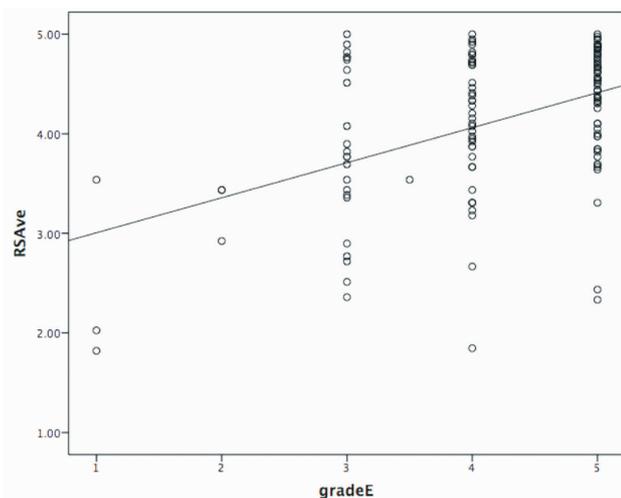


Figure 2. Professor-Student Rapport Scale/Grade Expectations Assumptions Scatterplot

hypothesis of normality when the p-value is less than or equal to 0.05" (Howell, 2011, p. 201). Therefore, the Spearman's rank-order correlation coefficient (Spearman's  $r_s$ ) was calculated to address the relationship between professor-student rapport and student expected course grade.

Analyses revealed a statistically significant relationship between professor-student rapport and student expected course grade ( $r_s^2[90] = .35, p < .001$ ) (see Table 3). The effect size of this relationship was moderate (Cohen, 1988; Green & Salkind, 2003). The coefficient of determination ( $r^2$ ) indicates that more than 12% of the variance in student expected grade is accounted for by its linear relationship with student reported instructor rapport.

### 4. Discussion

The purpose of this quantitative, non-experimental correlational research study was to determine if perceived rapport positively affects student perceptions of instructor effectiveness in freshman general education classes and/or their expected overall grade in the course.

The researcher's findings are consistent with prior research findings (Barth, 2008; Benton et al., 2013; Bryant, 2014; Chickering, 2006; Delucchi, 2000; Drouin & Vartanian, 2010; Frisby & Martin, 2010; Giles, 2011; Gruber et al., 2010; Heckert et al., 2006; Kowai-Bell et al., 2012; Kozub, 2010; Legg & Wilson, 2009; Murphy & Rodriguez-Manzanares, 2012; Starcher, 2011; Zhou, 2012). Delucchi (2000) found,

"Instructor likability, while exerting an appreciable negative effect on perceived learning, has a large positive effect on overall ratings of teaching ability. As a predictor of overall ratings, the magnitude of the likability

		grade E	P-S Rapport
Spearman's $r_s$	Grade Expectations	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	127
Professor-Student Rapport		Correlation Coefficient	.345**
		Sig. (2-tailed)	.000
		N	92

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 3. Spearman's Rank-Order Correlation Coefficient Results

effect far exceeds that for effort and perceptions of learning” (pp. 227-228).

The current study focused on a similar aspect of this relationship and confirmed a positive relationship between student/instructor rapport and student perceptions of teacher effectiveness.

Barth (2008) examined five factors of influence on student evaluation scores: quality of instruction, course rigor, level of interest, grades, and helpfulness.

“[Instructor helpfulness] was highly correlated with questions...concerning the instructor's availability and willingness to provide outside help to the students. These questions also highly correlated with [quality of instruction], which measured the overall course quality...There was also a relatively high loading with...the degree to which the instructor encourages class participation and questions. [Instructor helpfulness] seemed to measure some aspect of the instructor's personality, approachability, or openness with the students, which I labeled as instructor helpfulness” (p. 44).

H<sub>2</sub>: There is no relationship between student/instructor rapport, as measured by the Professor-Student Rapport Scale (Wilson et al., 2010), and students' expectations of their overall course grade in freshman general education courses at a career college in the Great Lakes Region of the United States.

Estep & Roberts (2013) concluded that “when students perceive they have a good relationship with their instructor they might have greater expectancy for success and value the course more, which could lead to greater engagement” (p. 189). This research study built upon the work of Estep & Roberts by finding a specific area where student/instructor rapport affected expectations-in the course grade.

## Conclusions

When presented with the knowledge that rapport affects learning, instructors could easily dismiss these findings as nothing new. However, the precise details of how it affects learning are harder to determine. To this end, the researcher designed this study to focus on rapport's effect on two areas: student perceptions of instructor

effectiveness, and student course grade expectations. The study used a highly focused participation group—students in freshman general education courses at a career college in the Great Lakes region of the United States—and eliminated those who either requested their instructor or had been in a class with the instructor previously. The purpose behind this decision was to eliminate as many external variables as possible and to attain the most accurate results, reflecting just the effects of rapport in the moment. The study determined that rapport does affect both student perceptions of teacher effectiveness and student expectations of overall course grade.

The researcher utilized two instruments to collect this data, the Professor-Student Rapport Scale and the IDEA Student Ratings of Instructor Short Form. The data were analyzed using a Pearson product-moment correlation coefficient (Pearson's *r*) to determine if a relationship existed between student/instructor rapport and student perceptions of teacher effectiveness, and using a Spearman's rank-order correlation coefficient (Spearman's *r<sub>s</sub>*) to determine if a relationship existed between student instructor rapport and student course grade expectations. Both statistical measures demonstrated a positive correlation.

In regards to the relationship between student/instructor rapport and student perceptions of instructor effectiveness, the results demonstrated a large effect size at  $r(90) = .76$ . While correlation does not indicate causation, the results confirm a strong linear relationship between the two-when student/instructor rapport is high, students are very likely to view their instructors as effective ( $r[90] = .76, p < .001$ ).

Rapport's effect on student perceptions of teacher effectiveness is determined through evaluation scores, and other researchers have done similar studies, albeit with instruments that measured slightly different things than the Professor-Student Rapport Scale and the IDEA Student Ratings of Instruction Short Form. For example, Barth (2008) identified “helpfulness” as a major determiner of students' perceptions of instruction, and defined the term as “some aspect of the instructor's personality, approachability, or openness with the students” (p. 44).

This definition works well for the purpose of this project as well and fits the questions asked of participants in the Professor-Student Rapport Scale.

In regards to the relationship between student/instructor rapport and student course grade expectations, the results demonstrated a medium effect size  $r_s(127) = .35$ . The results are statistically significant, but the relationship is not particularly strong.

## Implications

The results of this study demonstrate both a relationship between student/instructor rapport and student perceptions of teacher effectiveness and student/instructor rapport and student course grade expectations. Confirming these connections supports J. B. Rotter's Social Learning Theory, which suggests that "to understand behavior, one must take both the individual (i.e., his or her life history of learning and experiences) and the environment (i.e., those stimuli that the person is aware of and responding to) into account" (Mearns, 2009, para. 8). Further, the study builds on the findings of Barth (2008), Bergström (2010), Chan et al., (2014), Chickering (2006), Delucchi (2000), Frisby et al., (2014), and Frisby & Myers (2008) - that rapport is an important factor in the classroom. Researchers continue to search for means of motivating students (Del Guercio, 2011; Drouin & Vartanian, 2009; Freiberg & Lamb, 2009) and increasing student ownership of their learning (Chan et al., 2014; Estep & Roberts, 2013; Glover, 2012) while observing that rapport positively affects both engagement (Frisby & Martin, 2010; Gruber et al., 2010), participation (Frisby et al., 2014; Frisby & Myers, 2008) and expectations (Awang & Ismail, 2010; Bryant, 2014; Gabriel et al., 2012; Garcés-Ozanne & Sullivan, 2014). Additionally, researchers have linked rapport to a sense of belonging (O'Toole & Essex, 2012; Starcher, 2011) and persistence (Greenfield, 2011; O'Neill & Thomson, 2013). The body of evidence supporting the importance of rapport in the classroom is extensive, and this study confirms two other components in which student/instructor rapport is important-student perceptions of instructor effectiveness and a student's expected course grade. An increase in each has been shown to improve learning (Awang & Ismail, 2010; Chan et

al., 2014; Estep & Roberts, 2013; Frisby & Myers, 2008; Garcés-Ozanne & Sullivan, 2014).

## Limitations

This study was conducted with several limitations and with the understanding that while these limitations could control for certain variables, they also impacted the study design. The scope of the study was limited to freshman general education courses. This was done to reduce the effect of college experience specifically on students' course grade expectations, but it limited the participant pool. However, the population was sufficient for the power probability of finding a medium effect size, which, according to Gall et al., (2007), exceeded the required minimum of 66 participants.

The research was limited to one academic institution for the purpose of controlling for independent variables that might influence the study outcomes, such as length of course and institutional policies. While general education courses often share commonalities, each institution has different methodologies, grading requirements, and content. The institution where the study was conducted utilized a quarter schedule instead of semesters, which would have skewed findings for both null hypotheses. Collecting data at the same point in each class on different schedules would have left certain participants with a clearer idea of their overall course grade, whereas others would still have several additional weeks to go. Also, a course with fewer weeks in the schedule (and a different credit system) would have fewer assignments, which would have affected a student's reckoning of their overall course grade.

## Recommendations for Future Research

Based on the findings of this study in regards to Null Hypothesis 1, this researcher has identified several areas of potential for future studies.

- Measure technology usage as an element of the relationship between student/instructor rapport and student perceptions of instructor effectiveness. Several studies (Bates & Kaye, 2014; Gabriel et al., 2012; Greenfield, 2011; Legg & Wilson, 2009) have tested the effect of technology-driven rapport

building, but have not measured its effect on student perceptions of instructor effectiveness.

- Measure the relationship between student/instructor rapport and student perceptions of instructor effectiveness for core major courses as a point of comparison between this study which focused on freshman general education classes.
- Measure the relationship between student/instructor rapport and expected course grade for all other general education classes as a point of comparison with this study, which focused on freshman general education classes. With a large effect size of  $r(90) = .76$ , it would be instructional to repeat this study to determine whether participants with more completed course work have different perceptions of instructor effectiveness based on prior experiences in the classroom.
- Compare the findings of this study to one conducted exclusively with online classes. The effects of rapport in online settings has been the subject of several studies (Benton et al., 2013; Drouin & Vartanian, 2010; Ilgaz & Gülbahar, 2015; Malouff & Hall, 2012; Murphy & Rodriguez-Manzanares, 2012; Pittenger & Doering, 2010), but none have measured the effect of student/instructor rapport in an online setting on student perceptions of instructor effectiveness.
- Run this study again and collect demographic data to compare results across age, race, socio-economic, and gender lines, as well as declared major and parental education level.
- Run this study again and collect demographic data to compare results across age, race, socio-economic, and gender lines for the instructors of courses selected for inclusion.

Based on the findings of this study in regards to Null Hypothesis 2, this researcher has identified several areas of potential for future studies.

- Measure the relationship between student/instructor rapport and expected course grade for core major courses as a point of comparison with this study, which focused on freshman general education classes.

With a medium effect size of  $r_s(127) = .35$ , it would be instructional to see if core subject matter courses in a student's choice of major-which might cause a student to be more invested in a better overall course grade-might have a different result.

- Measure the relationship between student/instructor rapport and expected course grade for all other general education classes as a point of comparison with this study, which focused on freshman general education classes. With a medium effect size of  $r_s(127) = .35$ , it would be insightful to repeat this study to determine whether participants with more completed course work have different expectations of their overall course grade based on prior experiences in the classroom.
- Run this study again and collect demographic data to compare results across age, race, and gender lines, not just for student participants, but also for the instructors of courses selected for inclusion.
- Design a study to determine what variables besides student/instructor rapport have a greater effect size on student course grade expectations.

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## ABOUT THE AUTHORS

*Dr. Erin Yezbick has been a Communications Instructor for eleven years and in that time has concentrated her research on Rapport in the Classroom and Inter-institutional Collaboration.*



*Dr. Jeremy I. Tutty is currently a Dissertation Chair for the University of Phoenix and a Senior Instructional Design Analyst at Rio Salado College in Tempe, AZ. Where he has served as an ID and as the Chair of Physical Sciences and Sustainability. Prior to his role at Rio, Jeremy was a Senior Instructional Technology Consultant at DePaul University in Chicago. Dr. Tutty has more than 40 peer-reviewed publications in the areas of Educational Technology, Educational Administration, Curriculum Design, Evaluation, and Student Success.*

