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The Relationship of College GPA and Job Performance for Teaching Faculty at Blue Ridge Community College

Tim Nicely
Old Dominion University

THE RELATIONSHIP OF COLLEGE GPA AND JOB PERFORMANCE FOR TEACHING FACULTY AT BLUE RIDGE COMMUNITY COLLEGE

**A Research Project Presented to the Graduate Faculty of the
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**In Partial Fulfillment of the Requirements for the
Masters of Science in Occupational and
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Presented By

**Tim Nicely
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Tim Nicely prepared this research project under the direction of Dr. John Ritz in OTED 636, Problems in Occupational and Technical Studies, at Old Dominion University. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the degree of Master of Science in Occupational and Technical Studies.

Approved by: _____   Date: _____

                   Dr. John Ritz
                   Research Advisor and
                   Graduate Program Director
                   Occupational and Technical Studies
                   Old Dominion University

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CHAPTER I

INTRODUCTION

A century of scientific research has shown that General Cognitive Ability (GCA) can affect many outcomes, including academic achievement and job performance (Kuncel, Hezlett, & Ones, 2004). Grade Point Average (GPA) has long been the standard measure of academic achievement, and it has been assumed by many to be directly related to overall intelligence and career potential. For years, many people have believed that cognitive ability was the best predictor of job performance. It was assumed that "smarter" people were more likely to succeed on the job, and that those with high GPAs were inherently "smarter" (Which Traits, 2004).

Many organizations rely heavily on GPA as a screening criteria in the recruitment process. These organizations are obviously assuming that there is a direct relationship between academic achievement and occupational success (Samson, Graue, Weinstein, & Walberg, 1984). Johnny Taylor, Senior Vice-President of Human Resources for InterActiveCorp (a multi-billion dollar technology company), has stated that GPA is the "best predictor of new employee performance" because it demonstrates a strong work ethic and intelligence (Koeppel, 2006). A 2007 survey conducted by the National Association of Colleges and Employers found that over 66% of companies screen applicants in some manner using GPA (Koeppel, 2006).

Although it is true that past performance is generally the most reliable predictor of future achievement, many employers are now finding that judging applicants with a strong emphasis on academic performance may not be the best approach. Although there is strong evidence that undergraduate GPA is the best predictor of success in graduate

school, the evidence is mixed regarding the correlation of GPA and actual on-the-job performance (I Feel Like a Number, 2000).

At Blue Ridge Community College, the hiring of faculty positions is typically conducted by a search committee composed of representatives from faculty, staff, and administration. College transcripts are always required of job applicants and they are reviewed by the committee as part of the selection process. Some committees and/or individual administrators weigh GPA more (or less) heavily than other factors in the selection process. Since the overall research is mixed regarding the relationship between GPA and job performance, and because different people view the value of a high GPA differently, the researcher designed this study in an effort to determine if there has been any historical relationship between college GPA and faculty job performance at Blue Ridge Community College.

PROBLEM STATEMENT

The purpose of this study was to determine the relationship between faculty members' college Grade Point Average (GPA) and their individual job performance at Blue Ridge Community College.

HYPOTHESIS

To guide a solution to this problem, the following hypothesis was developed: H_0: There is no correlation between full-time faculty member college GPA and their overall performance as a faculty member at Blue Ridge Community College.

BACKGROUND AND SIGNIFICANCE

This study arose as the result of an attempt to improve the selection process of faculty members at Blue Ridge Community College. In the past, different search

committee members and college deans have placed varying amounts of emphasis on GPA in the recruitment of new faculty. Blue Ridge Community College is in the fortunate position of having many seemingly qualified candidates for most full-time faculty positions that are advertised. However, over the past two years, at least two new faculty members have not performed as expected, and there have been questions regarding whether the college actually made the best selection. It is not clear what role college GPA played in past recruitments, however, this study was initiated in an effort to determine if GPA should be strongly considered in future new faculty selections.

The relationship of GPA and job performance has been widely analyzed. Some studies show a low validity in GPA predicting job success, while other studies show a positive relationship (Lavigna, 1992). Frank Schmidt has said that given the overwhelming evidence of the strong link between cognitive ability and job performance, it is not "logically possible to have a serious debate" about whether GPA is important. Schmidt says that overall "intelligence" and job performance are "strongly related" (Schmidt, 2002). However, Paul Barada says that unless it is "horrible," GPA should not be the primary consideration in selecting job applicants. Barada (2006) believes that communicating clearly, logically approaching and solving problems, and "thinking on your feet" are more important than intelligence or GPA.

Just as there are many researchers who are strongly tied to their opinions of "direct relationship" and "no relationship," one can find still other researchers who believe that more study is needed in order to determine if there is any relationship between GPA and job performance. A recent study at East Carolina University concluded that although high school GPA is a relatively reliable predictor of college

success, more investigation is needed in order to develop any prediction regarding how GPA might predict future job performance (Abdel-Salam, Kauffmann, & Williamson, 2005).

Some researchers believe that differences in academic institutions' requirements dilute the validity of GPA in predicting performance. Therefore, those researchers discount the value of GPA in the selection process. However, one can find other studies that suggest GPA is a valid predictor of future success. In addition, many professionals espouse that more research is needed in order to have an understanding of how various educational measures (including GPA) may predict on-the-job performance (Truxillo, Bennett, & Collins, 1998). A recent study assessing the value of using medical school grades to predict job performance concluded that there was a moderate correlation. However, that study also identified that there was a need for a more constant and systematic approach to studying the potential for GPA to predict job success in various professions (Hamdy et al., 2006).

Opinions are also mixed among faculty and administration at Blue Ridge Community College regarding the value of GPA in predicting future success. Some people feel a high GPA is paramount to becoming an exceptional college faculty member, while other administrators see GPA as less important than other factors. This study will help identify if there has been any relationship between GPA and performance at BRCC, and it will help determine whether GPA should be used in the future as a screening criteria for full-time faculty opportunities.

LIMITATIONS

This study only considered faculty members who were continuously employed at Blue Ridge Community College from 2005-2007. Data from other colleges or universities were not considered in this analysis. Further limitations included the subjective nature of the performance evaluation process. Most managers would agree that there is no completely satisfactory way of measuring (or even defining) job performance (Wise, 1975). At Blue Ridge Community College, some managers have been well-trained in the performance management process, while others have not been trained at all. The Blue Ridge Community College faculty evaluation system has five levels of ratings (Excellent, Very Good, Good, Fair, and Unsatisfactory). However, since faculty members are rarely rated "Fair" or "Unsatisfactory," it is a de facto three-level system. In addition, even though descriptions are provided regarding how to determine one level of performance from another, there is no fully objective way to determine what is Good, Very Good, or Excellent job performance.

In calculating GPA, only classes taken in pursuit of a degree were counted in the overall analysis. Any other classes or professional development that was not part of pursuing a formal undergraduate or graduate degree were not considered. In addition, performance was only evaluated over two academic years. New faculty members may ultimately be rated higher once they have more experience, while all faculty members may be rated differently over the course of their careers. In the final analysis, this study is limited to studying the relationship between college GPA and job performance over a defined two-year period.

ASSUMPTIONS

This study assumes that although the evaluation process is subjective, it is not biased. It also assumes that supervisors have the same general expectations and that a "good" rating recognizes at least a similar level of performance from one faculty member to the other. Because this study only captures a two-year academic period, it is assumed that the performance levels captured will be similar from one year to the next, and that faculty members' individual performance does not vary widely from one year to the next. Finally, in evaluating GPA, it is assumed that the four-point scale has similar expectations at different colleges and universities across the country. As such, in this study, a 3.0 GPA at a small, private college in Virginia carries the same weight as a 3.0 at a large, public university in California.

PROCEDURES

This study required the collection of two basic sets of data (college GPA and recent performance evaluation ratings) for each subject. GPA information was gathered by reviewing the official college transcripts that are maintained in the personnel file of each faculty member. For this study, only classes that were taken as part of an official degree program were counted in the calculation of overall GPA.

Performance evaluation ratings for the past two years were collected by reviewing the final performance evaluation scores that were reported to the Virginia Community College System on the VCCS' official faculty compensation and contract spreadsheet. Faculty members were rated Excellent, Very Good, Good, Fair, or Unsatisfactory in two major performance areas (Teaching Effectiveness and Professional Activities and Contributions). A rating of Excellent was worth five points, Very Good was worth four

points, Good had a value of three points, Fair was worth two points, and an Unsatisfactory rating was worth one point. The scores in the two areas were added together to arrive at a total point value for each performance year, and then the scores for each year were averaged together in order to identify the average performance rating. The GPA scores and evaluation ratings were then compared and analyzed using Pearson's r statistical analysis in order to determine if there were any significant statistical relationships.

DEFINITION OF TERMS

The following terms are defined to assist the reader:

General Cognitive Ability (GCA): Innate ability to perform complex mental tasks, including math, spatial visualization, or memory. Typically identified by IQ tests or similar measures (Gottfredson, 2006).

Grade Point Average (GPA): The numeric average of letter grades. The 4.0 scale is most common where A=4, B=3, C=2, D=1, and F=0. The number of grade points earned for each course is determined by multiplying the numeric value by the number of credits earned (i.e., a three credit course with a grade of **A** yields twelve grade points; a 3 credit **B** earns 9 grade points, etc.). A cumulative GPA is calculated by dividing the sum of credits earned into the sum of the grade points earned (I Feel Like a Number, 2000).

 Faculty: Full-time instructional faculty members with nine-month contracts, teaching a minimum of nine credits per semester.

Selection Committee: The group of employees who conduct interviews and make the hiring recommendation for a particular job opportunity.

Blue Ridge Community College (BRCC): Two-year community college founded in

1967, located in Weyers Cave, VA, and serving the residents of the central Shenandoah Valley. BRCC is part of the Virginia Community College System and is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

Performance Level: Rating assigned to faculty members' job performance at the annual evaluation that is conducted in May of each year. Rating levels are Excellent, Very Good, Good, Fair, and Unsatisfactory.

Average Performance Rating: Numeric rating calculated by adding the scores for Teaching Effectiveness and Professional Activities/Contributions (Excellent = five points, Very Good = four points, Good = three points, Fair = two points, Unsatisfactory = one point). The scores in the two areas were added together to arrive at a total point value for one performance year. Then the total scores for two years (2005-06 and 2006-07) were averaged together to arrive at the Average Performance Rating.

OVERVIEW OF CHAPTERS

In today's competitive work environment, hiring managers are always searching for ways to help ensure they are hiring the right person each time an opportunity comes available. Some managers (and researchers) feel strongly that college grades are a strong predictor of future job performance. However, other professionals see little direct correlation between GPA and actual work performance. Although the relationship between academic and work performance has been widely studied, there has been no definitive conclusion regarding the value of using academic grades as part of the selection process. This study was initiated to determine if there is any relationship between college GPA and actual work performance for full-time faculty members at Blue Ridge Community College.

The next chapter will focus on a review of literature that has previously addressed this topic of the relationship between grades and work performance. This review will discuss the results of previous studies, as well as the opinions of other researchers and professionals who have studied the problem of comparing academic and career achievement. Following the review of literature, Chapter III will identify the methods and procedures that were used to collect, organize, and verify data in this study. In Chapter IV, the collected data will be analyzed and the findings of the study will be presented. Finally, Chapter V will summarize the results of this study and will present recommendations for continuing and future research.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to determine the relationship between faculty members' college Grade Point Average (GPA) and their individual job performance at Blue Ridge Community College. BRCC currently uses a structured screening process where applications are evaluated based on job-related criteria and demonstrated skills, abilities, and experience. College transcripts are also reviewed to determine degrees earned, courses taken, and grade point average. Some search committees place a significant emphasis on college grade point average, while others do not. It is important to have a valid and reliable selection process so that search committees have the best chance possible to make the right selection. There has been much written and studied regarding the relationship of academic performance and job performance, so this chapter will explore the significance of this problem as well as review some of the previous research in this area.

IMPORTANCE OF A VALID HIRING PROCESS

Most people would agree that it is important to have a valid selection process so that one is most likely to identify the best suited candidate for a particular position. With community college faculty selections, it is even more important to make a good selection since turnover is generally low and new hires will most likely be around for a long time (Employee Selection, 1999). There are many "costs" related to a bad hire, most notably lower performance (Williams, 2001). If a college consistently selects mediocre faculty members whenever a vacancy occurs, it will not be long before the majority of the faculty will consist of mediocre instructors; and there is no question that the return on investment

is much less for mediocre faculty members as compared to higher-performing instructors (Sullivan, 1999).

The State of Virginia projects that community colleges will see an average growth of 27% over the next five years (Mills, 2006). With this growth in enrollment will come the need to hire more faculty members. This growth, coupled with the increased number of faculty retirements, will put BRCC in the position of hiring many new faculty members over the next five years. In order to ensure that the best decisions are made, it is important to use valid and reliable processes to select new faculty members.

ATTITUDES REGARDING GPA AND JOB PERFORMANCE

Most aspects of organizations' selection processes are based on the premise that past performance is the most reliable predictor of future achievement; college grade point average is obviously part of an employee's past performance (I Feel Like a Number, 2000). Most organizations' selection procedures assume that there is a direct relationship between academic achievement and future occupational success (Samson et al., 1984). However, attitudes differ regarding the importance of grades in predicting future job performance. Some people assume that if someone has a high GPA, then that person is obviously a motivated, smart, and dedicated individual. However, other researchers argue that the differences between colleges and grading expectations diminish the value of comparing GPAs among job candidates (Truxillo, Bennett, & Collins, 1998).

Even if it is assumed that GPA does reliably predict general cognitive ability, many researchers argue that cognitive ability does not predict job performance. Gardner (1983) stated that general cognitive ability "reveals little about an individual's potential… and foretells little of success in later life" (p. 18, 3). However, other people

espouse that academic performance can predict future job performance, as they believe that a high GPA is usually the direct result of many desired behaviors such as prioritizing, dedication, motivation, and avoidance of counter-productive behaviors, including the use of drugs and alcohol (Kuncel, Hezlett, & Ones, 2004). Some people believe strongly that a high GPA correlates to diligence, perseverance, and motivation. However, others feel that a high GPA may or may not reflect these qualities, depending upon the person's innate cognitive ability, the school they attended, and the grading system used at their college(s) (Athey et al., 2006).

PREVIOUS STUDIES

GPA and job performance has been widely analyzed with inconsistent results (Lavigna, 1992). A study of 811 employees who attended a large southern university from 1977-1980 and were in different positions at companies of varying size, suggested that there was a positive and significant relationship between GPA, job performance, and earnings (Jones & Jackson, 1990). However, a study in 1992 of 138 professionals in an auditing division of a major multi-national organization showed no significant relationship between GPA and job performance. These auditors averaged being thirty-two years old with 2.5 years experience and had an average GPA of 3.3. This study considered the school attended, whether the individual had a bachelor or master's degree, as well as overall GPA. None of these factors was shown to be statistically significant in predicting job performance (Larkin & Schweikart, 1992). Another meta-analysis study conducted in 1988 showed a low overall validity in grades predicting job performance. However, this study did recognize that GPA was a better predictor when a job was more "academic" in nature (Lavigna, 1992).

Samson, Graue, Weinstein, and Walberg performed a comprehensive search of databases and major review articles going back to 1952 in order to determine what (if any) relationship existed between academic and occupational performance. Thirty-five studies were reviewed and the conclusion was that the variances noted in these studies made using grades "almost useless" in predicting future job performance. The relationship was seen to be somewhat more notable in business and nursing positions but definitely less significant in teaching, engineering, and positions requiring a doctorate degree (Samson et al., 1984).

Hoyt reviewed forty-six studies of college grades and adult achievement in several areas. In summary, he stated that "present evidence strongly suggests that college grades bear little or no relationship to any measure of adult accomplishment" (Wise, 1975, p. 351). However, Wise reported in a late 1960's study of 6800 manufacturing employees that the relationship between grades and job performance was statistically significant. Wise (1975) went on to espouse that academic achievement should be an important factor in the selection process because good grades were typically related to innate ability and motivation, which are two important qualities needed to be successful in the workplace.

In 2005, a major review of 569 English studies from 1955-2004 was conducted and nineteen were found to have sufficient data in regard to comparing GPA and workplace performance. These nineteen studies showed that there was a moderate correlation between undergraduate GPA and on-the-job performance (Hamdy et al., 2006). While these studies showed a moderate correlation, a study of 1030 economics

graduates from Harvard, M.I.T, Princeton, and Stanford in the 1990's showed a strong correlation between grades and job performance (Athey et al., 2006).

Research conducted by the TRACOM group in 2005 showed that interpersonal skills were just as important as intelligence and work experience in predicting job performance (New Research, 2005). Some researchers also report that intelligence and knowledge were only "loosely captured" by college grades. As a result, Hoyt has suggested that organizations should look closely at selecting a person based strongly on academic achievement (Wise, 1975).

SUMMARY

In reviewing the literature related to the problem of comparing academic and occupational performance, it is easy to see that the results are mixed. For every study suggesting a strong correlation, there is another study suggesting no correlation at all. In addition, there are other studies that point to a moderate correlation for certain occupations or in specific instances. Since there has been no definitive answer to this problem in general, the researcher attempted to determine if there were any statistical significance between college GPA and job performance, specifically for teaching faculty positions at Blue Ridge Community College. The next chapter will focus on the methods and procedures used to gather and analyze the data used in this study.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this study was to determine the relationship between faculty members' college Grade Point Average (GPA) and their individual job performance at Blue Ridge Community College. In order to fully understand and appreciate the overall results of the study, it is important to understand the methods and procedures that were used in collecting and analyzing the grade point average and job performance data. This chapter will first describe the population, research variables, and instrument design. Then, the field procedures and data collection techniques will be discussed. Finally, the method of statistical analysis will be identified and explained.

POPULATION

The population studied was all full-time instructional faculty members employed at Blue Ridge Community College during the 2005-2006 and 2006-2007 academic years. Forty-six full-time faculty members were studied. There were twenty-three males, twenty-three females, and only one minority faculty member. Faculty members ranged from age thirty to age seventy-one, with an average age of fifty. The forty-six faculty members studied averaged eleven years teaching at BRCC. All faculty members had at least a Master's Degree and three possessed a doctorate degree.

RESEARCH VARIABLES

The independent variable in this study was the faculty members' grade point average. The overall grade point average was calculated by using transcripts currently on file, and by considering only classes taken in pursuit of a degree. The dependent variable was faculty members' on-the-job performance. Job performance ratings were obtained

from the past two academic year faculty evaluations. As Human Resources Director at Blue Ridge Community College, the researcher had access to personnel files and the ability to use information therein for job-related purposes. This study was conducted in an effort to improve Blue Ridge Community College's hiring practices.

INSTRUMENT DESIGN

A table was developed containing the overall grade point average and average performance rating of each studied faculty member. The table identified each subject numerically (1-46) along with their GPA and average performance rating. Grade point average was then compared to the overall performance to determine if there was any significant relationship between the two variables.

FIELD PROCEDURES

Faculty job performance was determined by collecting evaluation scores from faculty performance evaluations for the past two academic years. A numeric rating was calculated by attaching a score of one through five to the evaluation ratings in the two established areas of Teaching Effectiveness and Professional Activities/Contributions (Excellent = five points, Very Good = four points, Good = three points, Fair = two points, Unsatisfactory = one point). The scores in the two areas were added together to arrive at a total point value for one performance year. Then the total scores for two years (2005-06 and 2006-07) were averaged together to arrive at the Average Performance Rating.

Grade Point Average was calculated using a 4.0 scale (where A=4, B=3, C=2, D=1, and F=0). The number of grade points earned for each course taken in pursuit of a degree was determined by multiplying the points associated with each letter grade by the numeric value by the number of credits earned (i.e., a three credit course with a grade of

A yields twelve grade points; a 3 credit **B** earns 9 grade points, etc.). Grade Point

Average was then calculated by dividing the sum of credits earned into the sum of the

grade points earned. Any courses taken on a pass/fail basis were not considered in this

calculation.

METHODS OF DATA COLLECTION

Copies of college transcripts and performance evaluations were available in each

faculty member's personnel file. The researcher compiled grade point average data and

performance rating information from the transcripts and evaluations that were already on

file in the Human Resources Office.

STATISTICAL ANALYSIS

After the data were collected, a Pearson's r test was conducted in an effort to

determine if there was any statistical correlation in the linear relationship between grade

point average and faculty job performance. The grade point averages and job

performance ratings of the forty-six identified full-time instructional faculty members

were the only data that were analyzed.

SUMMARY

Defining the methods and procedures used is essential to understanding the results

of any study. The population for this study included forty-six full-time faculty members

who were employed at BRCC during the academic years of 2005-2006 and 2006-2007.

These faculty members included twenty-three females, twenty-three males, and only one

minority. All subjects had at least a Master's Degree, while three possessed doctorate

degrees. Data were collected from transcripts and evaluation ratings in employee

personnel files in the Human Resources Office. These data were analyzed using a

Pearson's r evaluation. The next chapter will present the findings of this study.

CHAPTER IV

FINDINGS

The purpose of this study was to determine the relationship between faculty members' college Grade Point Average (GPA) and their individual job performance at Blue Ridge Community College. This chapter will include an overview of the data that were collected, as well as a table that graphically represents the information that was gathered. A narrative summary of the findings that resulted from the collected data will also be included in this chapter.

RESEARCH PARTICIPANTS

The subjects in this study included forty-six full-time faculty members at BRCC. In order to be included in this study, a subject had to be a continuously employed full-time instructional faculty member for the two consecutive academic years of 2005-2006 and 2006-2007. As the result of being employed as Human Resources Manager at BRCC, the researcher was able to obtain GPA information from official college transcripts and performance rating information from performance evaluations that were part of the faculty members' official personnel file.

RESULTS

The average GPA for all studied faculty members was 3.35, while the average performance evaluation score was 9.39. GPAs ranged from 2.19 to 3.92 and performance evaluation scores ranged from 5.5 to 10. Twenty-eight of the forty-six subjects studied (61%) received a perfect "10" performance evaluation score. Those subjects with perfect evaluation scores had an average GPA of 3.27. Eighteen faculty members received less than perfect evaluation scores, and those individuals had an average GPA of 3.48. The

nine individuals with the lowest evaluation scores (less than a "9") had an average GPA

of 3.52. Of the four subjects with the highest four GPA scores, only one individual

received a perfect "10" evaluation score. However, of the four subjects with the lowest

four GPA scores, all four had perfect "10" evaluation scores. These data are graphically

displayed in Table 1:

Table 1: **GPA and Performance Evaluation Score**

Subject #	GPA	AVG RATING
1	3.92	9.5
2	3.81	8
3	3.81	9
4	3.81	10
5	3.80	10
6	3.78	10
7	3.77	8
8	3.76	10
9	3.75	10
10	3.73	9
11	3.72	5.5
12	3.68	10
13	3.65	8
14	3.63	10
15	3.60	10
16	3.59	7.5
17	3.59	10
18	3.52	10
19	3.51	9.5
20	3.51	9.5
21	3.51	9.5
22	3.45	8
23	3.39	10
24	3.38	10
25	3.37	10
26	3.36	7.5
27	3.30	10
28	3.30	10
29	3.29	10
30	3.23	9.5
31	3.22	10
32	3.22	10
33	3.21	7.5
34	3.20	10
35	3.19	10
36	3.10	10
37	3.09	8
38	3.06	9.5

39	3.01	10
40	3.00	10
41	2.94	10
42	2.71	9
43	2.63	10
44	2.61	10
45	2.41	10
46	2.19	10
AVG	3.35	9.39
RANGE	2.19 - 3.92	5.5 - 10

Using Pearson's r to analyze the data that were collected and displayed in Table 1,

the r-value was -.24. From the table of critical values of Pearson's r (Appendix C), the

null hypothesis was accepted at the .05 level of significance (.304) with forty degrees of

freedom. Therefore, in accepting the null hypothesis, there was no significant statistical

relationship between faculty members' college GPA and performance evaluation ratings.

SUMMARY

The purpose of this study was to determine the relationship between faculty

members' college GPA and their individual job performance at Blue Ridge Community

College. It was hypothesized that there would be no correlation between GPA and the

overall performance rating. This research found that the average GPA of those faculty

members with the lowest performance evaluation ratings was slightly higher than the

average GPA of the faculty members with the best performance ratings. However, using

a Pearson's r statistical analysis to compare the collected data, the researcher found no

significant statistical relationship between GPA and job performance.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter will provide an overall summary of the research study that was conducted in an effort to determine the relationship between faculty members' college Grade Point Average (GPA) and their individual job performance at Blue Ridge Community College. This chapter will focus first on a summary of this research study. Then, conclusions will be presented, based on the data that were collected and the findings that were presented. Finally, several suggestions for using the results of this study and recommendations for additional research related to this topic will be presented.

SUMMARY

The purpose of this study was to determine the relationship between faculty members' college Grade Point Average (GPA) and their individual job performance at Blue Ridge Community College (BRCC). To guide a solution to this problem, the following hypothesis was developed:

H_0: There is no correlation between full-time faculty member college GPA and their overall performance as a faculty member at Blue Ridge Community College.

This study arose as the result of an attempt to improve the selection process of faculty members at Blue Ridge Community College. In the past, different search committee members and college deans have placed varying amounts of emphasis on GPA in the recruitment of new faculty. This study was initiated in an effort to determine if GPA should be strongly considered in future new faculty selections.

The relationship of GPA and job performance has been widely analyzed. Some studies show a low validity in GPA predicting job success, while other studies show a

positive relationship (Lavigna, 1992). There are some researchers who strongly believe there is a direct relationship between GPA and job performance. Many other researchers see no relationship at all. Still others believe that more study is needed in order to determine if there is any relationship between GPA and job performance (Abdel-Salam, Kauffmann, & Williamson, 2005).

Opinions are also mixed among faculty and administration at Blue Ridge Community College regarding the value of GPA in predicting future success. Some people feel a high GPA is paramount to becoming an exceptional college faculty member, while other administrators see GPA as less important than other factors. This study was undertaken in order to help identify if there has been any relationship between GPA and performance at BRCC and to assist in determining whether GPA should be used in the future as a screening criteria for full-time faculty opportunities.

This study was limited in that it only considered faculty members who were continuously employed at Blue Ridge Community College from 2005-2007. Data from other colleges or universities were not considered in this analysis. Further limitations included the subjective nature of the performance evaluation process. At Blue Ridge Community College, some managers have been well-trained in the performance management process, while others have not been trained at all. The Blue Ridge Community College faculty evaluation system has five levels of ratings from "Excellent" to "Unsatisfactory." However, since faculty members are rarely rated "Fair" or "Unsatisfactory," it is a de facto three-level system. Although descriptions are provided regarding how to determine one level of performance from another, there is no fully objective way to determine what is Good, Very Good, or Excellent job performance.

In calculating GPA, only classes taken in pursuit of a degree were counted in the overall analysis, and performance was only evaluated over two academic years. It is likely that new faculty members may ultimately be rated higher once they have more experience, while all faculty members may be rated differently over the course of their careers. However, this study is limited to studying the relationship between college GPA and job performance for certain Blue Ridge Community College faculty members over a defined two-year period.

The population studied was all full-time instructional faculty members continuously employed at Blue Ridge Community College during the 2005-2006 and 2006-2007 academic years. Forty-six full-time faculty members were studied, including twenty-three males and twenty-three females. There was only one minority faculty member in the population. Faculty members ranged from age thirty to age seventy-one, with an average age of fifty. The forty-six faculty members studied averaged eleven years experience teaching at BRCC. All faculty members had at least a Master's Degree and three possessed a doctorate degree.

A table was developed containing columns for the faculty members' identity number, GPA, and average performance rating. The researcher compiled grade point average data and performance rating information from the transcripts and evaluations that were already on file in the Human Resources Office. A Pearson's r statistical analysis was conducted in an effort to determine if there was any statistical correlation in the linear relationship between grade point average and overall faculty job performance.

CONCLUSIONS

To guide a solution to this problem, the following hypothesis was developed:

H_0: There is no correlation between full-time faculty member college GPA and their overall performance as a faculty member at Blue Ridge Community College. The Pearson's r analysis resulted in accepting this null hypothesis at the .05 level of significance ($r = -.24$ and $p > .05 = .304$). Although it was clear that there was no significant statistical relationship, the collected data showed a weak, negative relationship between GPA and performance. This low-level, inverse relationship is graphically displayed in the following scattergram.
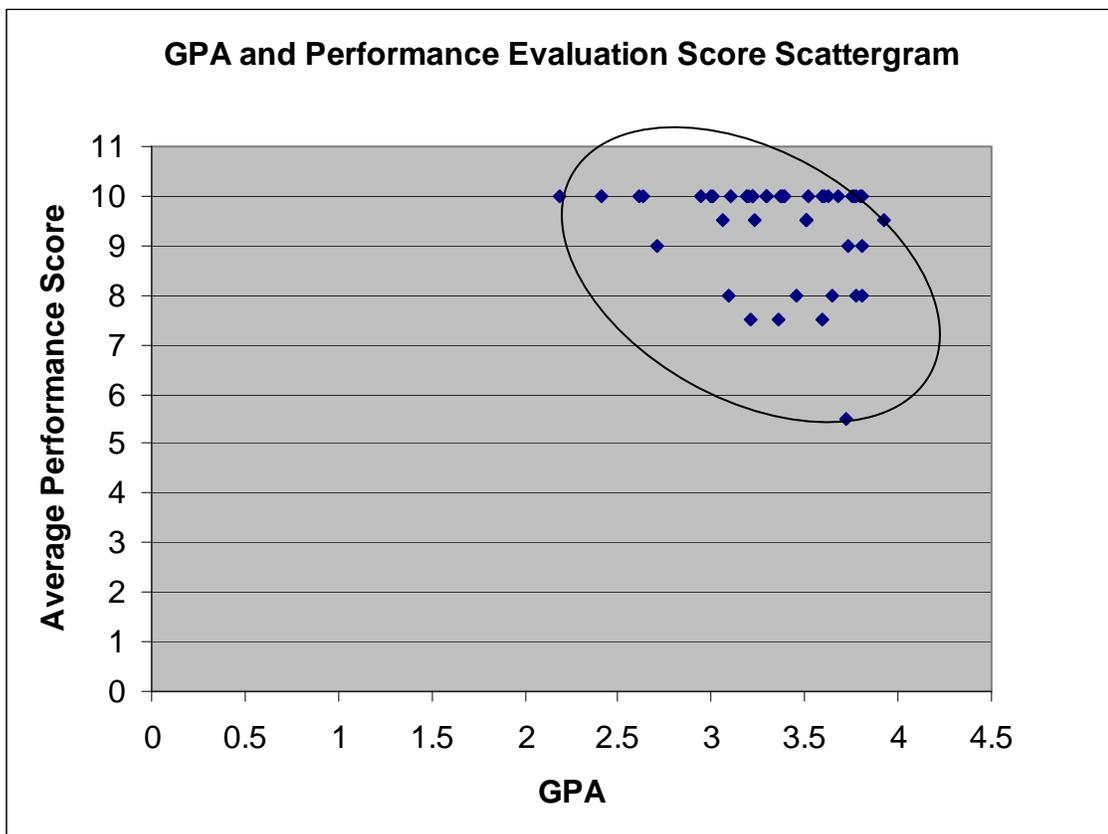

Figure 1: GPA and Performance Evaluation Score Scattergram

This study was undertaken so that it could be determined whether GPA should be a significant factor to consider in hiring new faculty members at Blue Ridge Community

College. The results showed that GPA should not be highly considered, since a high

GPA does not significantly correlate to a high performance evaluation score. Although

not statistically significant, the results indicated a weak, negative relationship where a

higher GPA may actually correlate to a slightly lower performance evaluation score. The

subjects with perfect "10" performance evaluation scores had an average GPA of 3.27,

which is slightly below the overall average of 3.35. The individuals with the four highest

GPAs had an average evaluation score of 9.1, which is slightly below the overall average

of 9.39. Based on the identified low-level, negative relationship, it may be slightly more

likely that a high GPA will result in a lower performance evaluation score. However, this

correlation is statistically insignificant, resulting in the conclusion that GPA is not a valid

predictor of on-the-job performance for faculty members at Blue Ridge Community

College.

RECOMMENDATIONS

Since there is no significant statistical relationship between overall college GPA

and performance evaluation ratings, BRCC administration should not strongly consider

overall college GPA in evaluating potential faculty hires. However, further study may be

helpful in identifying ways that GPA could be a more useful tool in the selection of

faculty members. It may be useful to study only undergraduate GPA, without

considering graduate GPAs which are typically higher and more consistent from one

faculty member to another. A study of GPA which included only classes in the declared

major area of study may also show different results than data collected in this study. It

may also be helpful to compare GPA with the evaluation scores received from students,

rather than the supervisor's performance evaluation ratings. Finally, a study

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encompassing five to ten years of performance evaluation ratings (rather than the two

years studied in this research) would allow for comparison of GPA to job performance

over an extended period of time.

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APPENDIX A – Performance Rating Scale

JOB PERFORMANCE				
Excellent	Very Good	Good	Fair	Unsatisfactory
5	4	3	2	1
PROFESSIONAL ACTIVITIES AND CONTRIBUTIONS				
Excellent	Very Good	Good	Fair	Unsatisfactory
5	4	3	2	1

** Scores are added together to arrive at total performance evaluation score

APPENDIX B – Pearson's r Formula and Calculation

$$r = \frac{N\left(\sum xy\right) - \left(\sum x\right)\left(\sum y\right)}{\sqrt{\left[N\left(\sum x^2\right) - \left(\sum x\right)^2\right]\left[N\left(\sum y^2\right) - \left(\sum y\right)^2\right]}}$$

Where: N = number of pairs of scores

XY = sum of the products of the paired scores
X = sum of scores on one variable
Y = sum of scores on the other variable
X^2 = sum of the squared scores on the X variable
Y^2 = sum of the squared scores on the Y variable

APPENDIX C – Critical Value of Pearson's r

Critical Values of the Pearson Product Moment Correlation Coefficient

	Level of significance for one-tailed test				
df = N - 2 (degrees of freedom)	0.05	0.025	0.01	0.005	0.0005
	Level of significance for two-tailed test				
	0.10	**0.05**	**0.02**	**0.01**	**0.001**
1	.9877	.9969	.9995	.9999	1.0000
2	.9000	.9500	.9800	.9900	.9990
3	.8054	.8783	.9343	.9587	.9912
4	.7293	.8114	.8822	.9172	.9741
5	.6694	.7545	.8329	.8745	.9507
6	.6215	.7067	.7887	.8343	.9249
7	.5822	.6664	.7498	.7977	.8982
8	.5494	.6319	.7155	.7646	.8721
9	.5214	.6021	.6851	.7348	.8471
10	.4973	.5760	.6581	.7079	.8233
11	.4762	.5529	.6339	.6835	.8010
12	.4575	.5324	.6120	.6614	.7800
13	.4409	.5139	.5923	.6411	.7603
14	.4259	.4973	.5742	.6226	.7420
15	.4124	.4821	.5577	.6055	.7246
16	.4000	.4683	.5425	.5897	.7084
17	.3887	.4555	.5285	.5751	.6932
18	.3783	.4438	.5155	.5614	.6787
19	.3687	.4329	.5034	.5487	.6652
20	.3598	.4227	.4921	.5368	.6524
25	.3233	.3809	.4451	.4869	.5974
30	.2960	.3494	.4093	.4487	.5541
35	.2746	.3246	.3810	.4182	.5189
40	**.2573**	**.3044**	**.3578**	**.3932**	**.4896**
45	.2428	.2875	.3384	.3721	.4648
50	.2306	.2732	.3218	.3541	.4422
60	.2108	.2500	.2948	.3248	.4078
70	.1954	.2319	.2737	.3017	.3799
80	.1829	.2172	.2565	.2830	.3568
90	.1729	.2050	.2422	.2673	.3375
100	.1638	.1946	.2301	.2540	.3211