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A Correlational Study Examining the Teacher Candidates' Performance in the Initial Teacher Preparation Programs of a Private Midwestern University

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A Dissertation submitted to the Education Faculty of Lindenwood University in partial fulfillment of the requirements for the degree of

Doctor of Education

School of Education

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This Dissertation has been approved as partial fulfillment of the requirements for the degree of

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at Lindenwood University by the School of Education

Dr. Kevin Winslow, Dissertation Chair	Date 03/10/2023
Dr. Robyne Elder, Committee Member	Date 03/10/2023
Dr. Roger (Mitch) Nasser, Committee Member	Date 03/10/2023

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work at Lindenwood University and that I have not submitted it for any other college or university course or degree.

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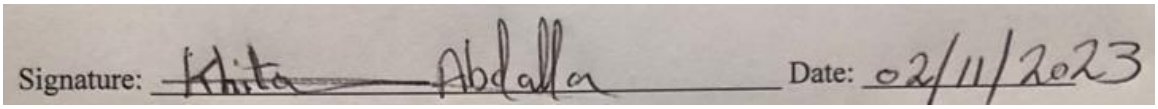

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Abstract

This study explores and identifies the variables that affect teacher candidates' performance in various stages of their study in the Teacher Preparation Programs at a Private Midwestern University. The researcher introduced the topic by providing a background of the study and its significance in maintaining the effectiveness of the Teacher Preparation Programs and its ability to prepare teacher candidates for state assessments and their field experience. One research question, five hypotheses, and 38 sub-hypotheses were formulated to tackle this study. The researcher provided literature on topics surrounding the history of teacher preparation programs and the curriculum offered by the Teacher Preparation Programs at the Private Midwestern University. The researcher compiled quantitative data obtained by the School of Education, at the Private Midwestern University, to perform various statistical tests using SPSS software. The data included teacher candidates' GPAs at different stages of their programs, their scores on various state assessments, their field experience evaluations, and their exit survey data. The researcher conducted several quantitative descriptive analyses, scatter plots, and one-tailed correlation analyses to determine if there was a relationship between various measures of students' performance in the Teacher Preparation Programs. The statistical findings showed sufficient evidence that relationships exist between various measures of student performance in the Teacher Preparation Programs. The exit survey also showed that teacher candidates are overall satisfied with their program and believe it prepared them well for state assessments and real classroom practice. Accordingly, the researcher provided some recommendations for the Teacher Preparation Programs and future research.

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Chapter One: Introduction

Over time, education around the world has evolved through experiencing various developments that focused on improving students' intellectual capacity, empowering students by improving their skills and knowledge, and transforming students' minds and personalities so that students become more self-determined, while at the same time having self-identity (Anchan, 2015). Individuals seek education to have a deeper knowledge and understanding of various subjects, improve their critical thinking and creativity, and meet job qualifications that make them more likely to secure a job.

The current educational system in the United States is composed of lower and higher sectors, and the lower sector is related to K-12 (Kaplin & Lee, 2014). Higher education entails education beyond K-12, and the approved institutions by state authorities are the ones that offer this type of education to students (Blessinger & Anchan, 2015). Higher education consists of public and private institutions, and the private institutions are subdivided into secular and sectarian institutions (Kaplin & Lee, 2014). The traditional path to higher education in the United States is through universities that offer undergraduate, graduate, and professional programs. These programs confer bachelor, master, professional certification, and/or doctorate degrees.

The role of the teacher is vital in all of these educational offerings. Consequently, the development of undergraduate and graduate Teacher Preparation Programs is essential to the university mission, teacher candidates, and the community service. This development has a substantial effect on the abilities of undergraduate and graduate teacher candidates, impacting the way they deliver classroom subject materials, and their communication with students, parents, and colleagues. Consequently, Teacher

Preparation Programs must have the ability to provide teacher candidates with the knowledge, skills, and competencies needed for optimal performance in the classroom to improve students' achievement that reveal their best skills and meet academic expectations.

Background of the Study

Teachers are valued as experts in instruction and as leaders in developing and implementing education policy and practice. Innovative teachers are always in demand, because they put energy and creativity into helping prepare students to tackle future challenges. To become a certified teacher, one must earn a bachelor's degree, complete Teacher Preparation Program requirements, and apply for a professional license. Each state has its own teacher training requirements, so the rules vary depending on where one lives (MoDESE, Education Preparation Program, 2021a).

Missouri has five routes that allow teachers to enter the education profession with a license to teach, including the traditional route, alternative route, temporary authorization route, out of state route, and the doctoral route. The traditional route allows teacher candidates to complete a four-year coursework plan, participate in student teaching, pass the designated assessment test, graduate with a bachelor's degree in the field of education, and obtain the initial certificate to teach. The alternative route allows teacher candidates with a bachelor's degree in a content area, such as English or math to complete 30 semester hours in an educational program, pass the designated assessment test, and obtain recommendation to receive the initial certificate to teach (MoDESE, Routes to Certification, 2021b).

The temporary route allows teacher candidates with a bachelor's degree in a content area, such as English or math to take 24 semester hours in different areas, meet specified competencies, teach for two years under school district supervision, and pass at least two exit examinations. The out of state route allows teachers with a valid teaching certificate from another state to obtain a comparable certificate in Missouri, which may qualify them for an initial or career certificate, depending on the number of years of teaching experience. The doctoral route allows teachers with a doctorate degree in a secondary certification content area, such as math or biology to obtain an initial certificate by passing the (063) exam for professional knowledge in the secondary assessment (MoDESE, Routes to Certification, 2021).

According to the National Council on Teacher Quality (2020), 80% of teachers take the traditional pathway to certification. The traditional pathway is a common route to teaching as it allows educators to earn a teaching certificate through a degree program in which the educator completes educational coursework in a teaching program at a college or university and then proceeds with obtaining their teaching experience and certification. These programs are called Teacher Preparation Programs and are offered by many universities through various teaching courses for their undergraduate and graduate students seeking teaching certification. Teacher Preparation Programs allow educators to earn a degree in a teaching subject, such as math or science, while at the same time obtaining a teaching certificate that allows them to teach in schools and become subject matter experts in both their specific field and in instruction technique methodology (MoDESE, Routes to Certification, 2021b).

A Private Midwestern University offers undergraduate and graduate Teacher Preparation Programs that lead to certification in different areas in K-12 and secondary education. The Advisement, Retention, and Certification Center (ARCC) of the College of Education and Human Services at this university is a centralized center that mentors and advises students who pursue teacher certification and its advanced levels. The undergraduate and graduate Teacher Preparation Programs of this university engage students in supervised and professional field experiences that help them utilize a reflective practice to improve their teaching skills (LU, Teacher Education-Initial Certification Student Handbook, 2021).

The university also offers different educational courses that support educators' development of their professional knowledge, skills, and disposition. The courses consist of observation, conferences, and supervised teaching in early childhood, elementary, middle, and secondary schools. Furthermore, the undergraduate and graduate Teacher Preparation Programs require teacher candidates to complete an internship program as a requirement for graduation. The purpose of the internship is to prepare educators to be innovative, collaborative, effective, and reflective. This preparation allows educators to motivate students' thinking during classroom sessions and engage teacher candidates with other educators, while also exposing teacher candidates to meaningful educational practices and quality instructional methods that improve their skills and knowledge (LU, Teacher Education-Initial Certification Student Handbook, 2021).

Similarly, Teacher Preparation Programs expect teacher candidates to demonstrate commitment to continuous improvement by having solid knowledge of their subject matter, teaching strategies and techniques, technology integration in the

classroom, and the ability to address the needs of all learners. Also, Cooperative Teachers (CT) and University Supervisors (US) must have a solid understanding of the formative and summative assessments and a good use of it while making decisions regarding teacher candidates' performance, so that they are evaluated fairly and given more comprehensive instructional advice that can lead to the improvement of their teaching abilities (LU, Teacher Education-Initial Certification Student Handbook, 2021).

The School of Education at the Private Midwestern University gathered and compiled various types of data in its database regarding its undergraduate and graduate teacher candidates who studied and/or graduated from its Teacher Preparation Programs. The School of Education constructed the database according to the information collected from various state assessments performed by students seeking certification, in addition to other assessments utilized by the Teacher Preparation Programs. This data will be referred to as historical secondary data. It is the researcher's intent to study, assess, and analyze the data from this historical database dating back five years for the period of 2016 through 2020, to determine the variables that affect teacher candidates' performance in various state certification assessments and during their internship training experience.

The analysis of the historical secondary data will help the researcher not only find the relationship between the variables that affect teacher candidates' performance during their internship training and in various state certification assessments, but also determine whether the evaluation tools used by the School of Education during the internship experience are comprehensive enough to distinguish capable teachers. The analysis will also help discover elements that can improve Teacher Preparation Programs at the

university, which will enhance teacher candidates' performance in various state certification assessments and in their internship training experience.

Statement of the Problem

Educational and school system reform in the current environment of economic globalization is essential to national economic competitiveness, which has resulted in continued demand for high academic expectations and achievement in school systems (Young et al., 2005). The effectiveness of the learning process in schools depends not only on school leaders, but also on school teachers who deliver the subject materials to classroom students and play a vital role in improving their outcomes (Young et al., 2005). The impact of teaching performance influenced educational departments at universities to create and adopt several educational programs that support the preparation of school teachers to develop and improve their skills and competencies.

Whether Teacher Preparation Programs offered by many universities in the state of Missouri are effective or not in preparing teacher candidates, ensuring their successful completion of state certification assessments, and excelling in their internship training experience remains unknown. Thus, it is the researcher's intent to study the historical secondary database gathered and compiled by the School of Education at a Private Midwestern University, regarding its teacher candidates who studied and/or graduated from its undergraduate and graduate Teacher Preparation Programs.

For this study, the researcher selected a period of five years, from 2016 through 2020, to explore and analyze the variables that affect teacher candidates' performance in the state certification assessments and their internship training experience. The researcher will study the data to identify relationships between various variables and teacher

candidates' performance in state certification assessments and during their internship experience to measure the effectiveness of the Teacher Preparation Program and the evaluation tools used to assess teacher candidates.

Based on this, the researcher will explore, examine, and analyze various variables that may have impacted teacher candidates' performance in the state certification assessment and internship training, and will use a quantitative approach to gather secondary data with the objective of determining these variables and their relationship with teacher candidates' performance.

Rationale of the Study

The rationale of the study is to explore, examine, and analyze the variables stated in the hypotheses to identify variations in the data and determine whether this variability is enough to differentiate between variables that affect teacher candidates' performance during their internship training experience. This will help discover whether the assessment tools used for evaluating teacher candidates' performance during their internship training experience are robust enough to effectively assess teacher candidates and if they are a good indicator of teacher performance in real-life practice. The reason for conducting the study is to use analytical results to make informed recommendations to the School of Education to help improve their Teacher Preparation Programs and the assessment tools used for evaluating teacher candidates during their internship training experience.

To date, many researchers have tackled various aspects of Teacher Preparation Programs in their studies, including the teacher education preparation assessment system (Stoulig, 2009), classroom management and academic preparation (Carr, 2013), the

evaluation of teacher education programs by investigating the piloted Missouri Pre-Service Teacher Assessment (MoPTA; Elder, 2015), the relationship between grit and self-efficacy (Riddle, 2018), the relationship between the quality of teacher preparation and beginning teacher retention (Cunningham, 2019), and the relationship between the teacher preparation and attrition in the teaching field (Trujillo, 2020). However, the analysis of variables related to historical data collected by the School of Education at this Private Midwestern University for both the undergraduate and graduate Teacher Preparation Programs over a period of five years has not been addressed before in a doctoral dissertation.

Throughout the study, the researcher explored and identified the factors that affect the Teacher Preparation Programs, which will impact the current state of the topic and the practice by providing information on the variables that may affect students' teaching performance in the state certification assessments and the practicum teaching experience. This impact will contribute to the field of teaching and education and will ensure the overall success of teacher candidates and their satisfaction within the Teacher Preparation Programs.

The study will impact future research by encouraging researchers to study other aspects of Teacher Preparation Programs to show where these programs stand among other Teacher Preparation Programs in the state of Missouri. The study will also shed light on students' perspectives of the nature of Teacher Preparation Programs and the assessment tools used, which can serve as a foundation for future research that studies students' experiences within Teacher Preparation Programs.

Purpose of the Study

The local context of the study is the undergraduate and graduate Teacher Preparation Programs at a Private Midwestern University. The researcher is currently a student in the Ed.D. program at this university and will not directly collect the data from participants; instead, the researcher will use the historical secondary data collected and compiled by the School of Education related to its undergraduate and graduate teacher candidates, who studied and graduated from the Teacher Preparation Programs over a period of five years from 2016 through 2020.

The purpose of the study is to examine the collected historical data, explore and analyze the variables related to demographics, performance on state certification assessments, and academic measures, to find specific patterns within or relationships between the variables that might affect teacher candidates' performance in state certification assessments and their internship training experience. Also, the analysis of various variables and the exploration of these relationships will help identify the variables that predict the mastery of the state certification standards and the overall success and satisfaction with the programs, potentially highlighting areas that the School of Education needs to address to improve these programs.

Research Question and Hypotheses

Based on the aforementioned, the researcher raised the following question and generated the following hypotheses to help in answering the question of the study:

Research Question 1: What, if any, are the relationships between the various measures of students' performance in the Teacher Preparation Programs?

Null hypothesis 1: There is no relationship between the teacher candidates' GPAs and their performance on their field experience.

Null hypothesis 2: There is no relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs.

Null hypothesis 3: There is no relationship between the teacher candidates' performance on Missouri State Assessments and their performance on their field experience.

Null hypothesis 4: There is no relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments.

Null hypothesis 5: There is no relationship between the teacher candidates' performance on their field experience as assessed by their cooperating teachers and university supervisors.

Importance/Significance of the Study

The study findings will contribute to society, Teacher Preparation Programs, and the teacher candidates. School teachers play an important role in shaping students' lives and inspiring them to dream bigger. School teachers provide guidance to students, simplify complex subject issues, and teach students valuable skills, such as critical thinking, communication, presentation, and more. School teachers help students be creative, talented, and successful, and can influence them to use what they learned to make a positive change in society. Based on this, Teacher Preparation Programs play a vital role in preparing future school teachers.

The demand for schoolteachers in different educational levels and with different backgrounds justifies the need for effective Teacher Preparation Programs. Teacher

Preparation Programs that consider the findings and recommendations of this study can improve teacher candidates' performance in state certification assessments and the practicum training experience. The findings of the study will also guide Teacher Preparation Programs on their curriculum and the tools they can use for evaluating teacher candidates. This will help improve teacher candidates' performance in various state certification assessments, practicum training, and later in real-life experience.

Definition of Terms

For the purpose of this study, the following terms are defined:

American College Testing (ACT) is a standardized test that is used for college admissions in the United States. The test is administered by the American College Testing Organization (ACT), a nonprofit organization. The ACT test covers four academic skill areas: English, mathematics, reading, and scientific reasoning (Retrospective, 2021).

Annual Performance Report for Educator Preparation Programs (APR-EPP) is an annual performance report for educator preparation programs, which is issued by the Department of Elementary and Secondary Education (DESE) to ensure that these programs are meeting the expectations outlined by the Missouri Standards for the Preparation of Educators (MoSPE) and to identify any program that needs improvement to provide educators with the appropriate support they need (MoDESE, 2019).

Content Knowledge: Is an understanding of the concepts of a particular academic discipline (Content Knowledge, 2020).

Cooperating Teacher (CT): Is the in-service teacher in whose classroom a teacher candidate completes a field or clinical experience, and who is responsible for

supervising and evaluating the candidate's daily activities in the field (Cooperating Teaching, 2020).

Council for the Accreditation of Educator Preparation (CAEP): Is a professional accreditor that focuses on accrediting teacher education programs in U.S. colleges and universities. It was founded in 2013 after the Teacher Education Accreditation Council (TEAC) merged with the National Council for Accreditation of Teacher Education (NCATE). CAEP is recognized as an accreditor by the U.S. Department of Education and is the only accrediting agency for Teacher Preparation Programs (MoDESE, n.d.).

Educator Preparation Program (EPP): Is the academic program at an accredited institution of higher education that is approved by the Department of Elementary and Secondary Education (DESE) on behalf of the Missouri State Board of Education (SBE) to recommend candidates for professional educator certification upon successful completion (EPP, 2020).

Foliotek: Is an online portfolio management system that is used by the School of Education in the academic institution. The teacher candidates in teacher education, counseling, and leadership use the system to store and evaluate portfolios and request observation, practicum teaching experience, field placement, internship placement, and store essential documents, such as assessment scores and background checks (Foliotek, n.d.).

Initial Professional Certificate (IPC): Is a certificate valid for four years and issued to educators upon successfully completing the requirements including a four-year

college program, student teaching, passing the designated assessments and graduating with a bachelor's degree in the field of education (IPC, n.d.).

Initial Teacher Preparation Programs (ITPPs): Are programs at the undergraduate or graduate levels that prepare candidates for the first license to teach. They include undergraduate and graduate programs, and alternative route programs that prepare individuals for the first license in teaching (ITPP, 2010).

Missouri Content Assessments (MoCA): Are tests that must be successfully completed by all candidates for a teaching or student services certificate. Candidates must attempt MoCA for their certification area prior to student teaching and the appropriate MoCA must be passed to be recommended for certification (MoCA, n.d.).

Missouri Department of Elementary and Secondary Education (MoDESE): Is the administrative arm of the State Board of Education and the service agency that works with educators, legislators, government agencies, community leaders and citizens to maintain a strong public education system. The agency maintains statewide school improvement activities and regulatory functions and strives to assure that all citizens have access to high quality public education (MoDESE, n.d.).

Missouri Educators Evaluation System (MEES): Is a set of standards and indicators established by MoSPE. The School of Education in all academic institutions uses MEES as a guide to inform instruction, create assessments and rubrics, and assess the teacher candidates' performance during their student teaching experience (MEES, n.d.).

Missouri General Education Assessment (MoGEA): Is a test for admission into undergraduate educator preparation programs in Missouri that includes sections on

English language arts, writing, mathematics, science and social science. This assessment began in September 2013 and replaced the College Base (CBASE) test (MoGEA, n.d.).

Missouri Pre-Service Teacher Assessment (MoPTA): Is a performance-based, pre-licensure assessment of a teacher candidate's readiness and ability to teach effectively. It is an extensive assessment containing four tasks the teacher candidate must complete during student teaching and is required for certification (MoPTA, n.d.).

Missouri Standards for Preparation of Educators (MoSPE): Are standards established by the state of Missouri that outline the responsibilities of Educator Preparation Programs (EPPs) leading to the recommendation for educator certification in the state of Missouri. All Educator Preparation Programs (EPPs) must provide evidence that certification candidates meet the MoSPE standards to receive the initial and continuing approval from the State Board of Education (MoSPE, 2020).

Model Code of Ethics for Educators (MCEE): Are principles for ethical best practice, mindfulness, self-reflection, and decision-making, setting the groundwork for self-regulation and self-accountability. These principles define the ethical behavior, ethical best practice, and ethical responsibilities held in common by K-12 educators and were established by educators to honor the public's trust and uphold the dignity of the profession (MCEE, n.d.).

Pedagogical Skills: Are the instructional and classroom engagement practices employed by a teacher to promote meaningful learning for students (Incorporated, 2020).

Praxis II: Are Praxis Subject Assessments used to evaluate the prospective teacher's knowledge of specific subjects at the K-12 level. All the subject assessments (SA) are computer-based tests except for the Braille test, and the Educational Testing

Service (ETS) administers both the Praxis Core and the Praxis Subject Assessments which comprise of over 90 exams in diverse areas of study (PRAXIS II, n.d.).

Rationale/Reflection (R/R): Is the essay assignment that teacher candidates are required to complete to show their understanding of the Missouri teacher standards. Teacher candidates should supply an artifact for each standard in the form of an assignment, assessment, or activity completed in the course and write a reflective essay about the artifact and the standard (Rationale/Reflection, n.d.).

The National Council for Accreditation of Teacher Education (NCATE): Is a professional accreditor that focuses on accrediting teacher education programs in U.S. colleges and universities. It was founded in 1954 and was recognized as an accreditor by the U.S. Department of Education. In 2013, NCATE merged with the Teacher Education Accreditation Council (TEAC) to form the Council for the Accreditation of Educator Preparation (CAEP; NCATE, n.d.).

Teacher Education Accreditation Council (TEAC): Is a recognized accreditor of teacher preparation programs which merged with NCATE to form CAEP (TEAC, n.d.).

Limitations and Delimitations of the Study

The limitations and delimitations of the study help the researcher determine the parameters of the study. The limitations to this study include the collection of data and the shortened time frame to conduct the work. In addition, the critical conditions resulting from the Corona Virus pandemic have already impacted the accessibility to university documents, due to ongoing social distancing. Furthermore, the sample size might limit

the generalizability of the study as the sample will include teacher candidates who studied and graduated from the Private Midwestern University only.

Other limitations to the study concern the lack of literature surrounding the topic. Research on Teacher Preparation Programs is limited to assessment systems (Stoulig, 2009), classroom management (Carr, 2013), Pre-Service Teacher Assessment (Elder, 2015), self-efficacy (Riddle, 2018), teacher retention (Cunningham, 2019), and attrition in the teaching field (Trujillo, 2020). However, the analysis of variables that affect teacher candidates' performance in the state certification assessments and the internship experience were never addressed.

Also, limited literature was found related to the framework of school teacher certification assessments, and the context of the articles and dissertations that were conducted surrounding school teacher's assessment was not in the state of Missouri. Therefore, the researcher will use the available articles, books, and other educational resources to deduce accordingly. Finally, the researcher is an international student and is not familiar with the system and culture in the USA, which might raise some obstacles when dealing with the source of information relating to the context of this study. These obstacles may have an impact on various stages of the research.

As for the delimitations of the study, the researcher decided to narrow the study sample by eliminating student records that have no scores. The researcher used only first attempt scores of the MoPTA assessment and eliminated data related to teacher candidates' disposition 1, 2, and 3. Furthermore, the researcher used the historical secondary data collected and compiled by the School of Education at the Private Midwestern University for students who studied and graduated from its undergraduate and graduate Teacher

Preparation Programs over a period of five years from 2016 through 2020 and did not examine any data collected before or after this period.

Assumptions of the Study

The researcher assumes that the data set gathered and compiled by the School of Education at the Private Midwestern University about its teacher candidates' performance who graduated from its undergraduate and graduate Teacher Preparation Programs is accurate and a true reflection of their performance in the state certification assessments and other assessments used by the university during their study in the programs. Also, the researcher assumes that the variables selected for the study hypotheses and the statistical tests will be a good indicator of the relationship between the variables and teacher candidates' performance in various state certification assessments and their internship experience.

Summary

Teachers are vital to society as they have the power to change lives, inspire students, set them up for success as citizens, and help them do well and succeed in school and life. Since today's children are tomorrow's leaders, it is essential to provide teacher candidates who are currently studying in the Teacher Preparation Programs with the knowledge and skills that improve their ability to shape future generations.

This chapter provided information on the research question and hypotheses, the rationale, and the significance of the study to the body of knowledge in the field of teaching and education. The next chapter provides the literature review and the conceptual framework of the study. The chapter will give an overview of educational development and the Teacher Preparation Programs in the United States and the Private

Midwestern University. The chapter will also highlight various state and university requirements and assessments that teacher candidates need to perform to successfully graduate from these programs and start their teaching career in real-life practice.

Chapter Two: Literature Review

The history of the teaching profession shows that teaching has transformed from a simple educational function to a complex one due to the significant role teachers play in preparing children and young adults to become productive citizens. As a result, many learning institutions established undergraduate and graduate Teacher Preparation Programs offering teaching education and training that promote for the improvement of the teaching profession for the sake of public well-being. Consequently, state, and federal policymakers changed the evaluation of Teacher Preparation Programs and held them accountable for teachers' performance (Coggshall et al., 2012). Hence, teacher candidates should receive the support they need to ensure that they have the knowledge and competencies needed to provide students with quality education and effective learning.

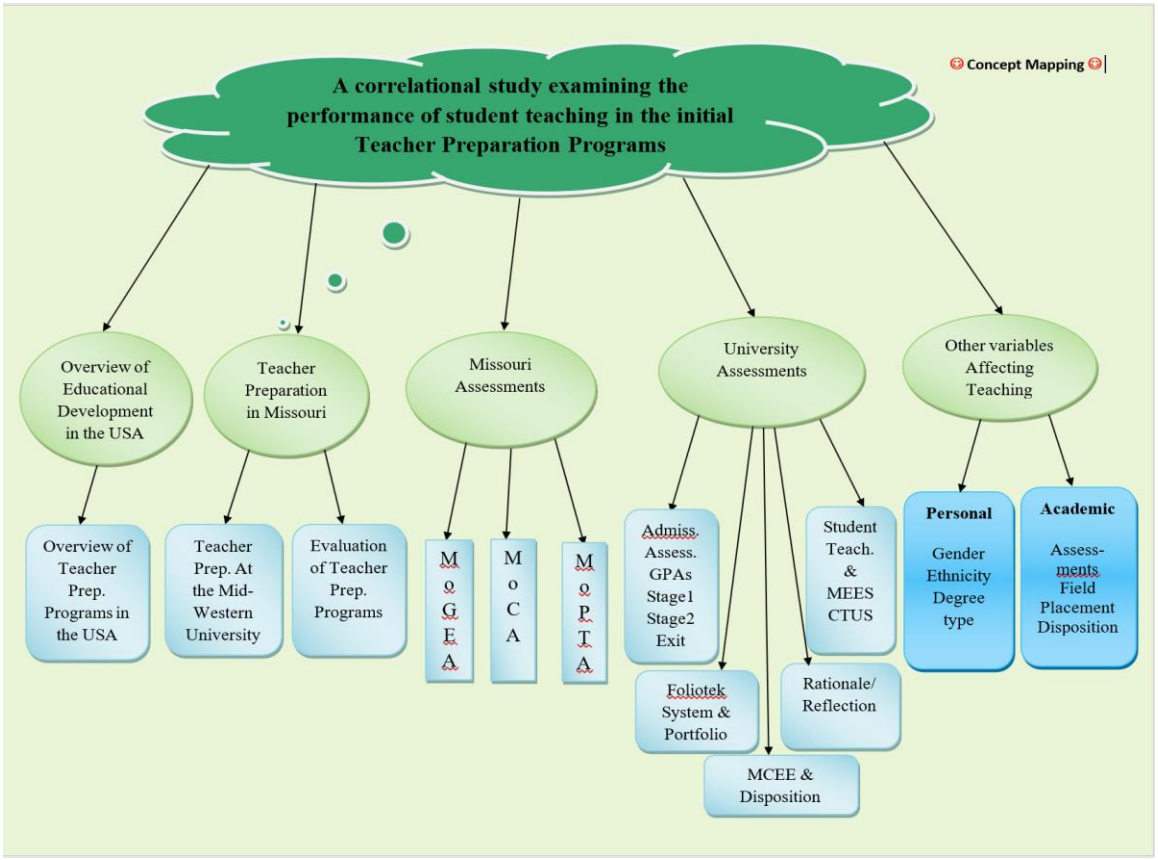
This chapter provides an overview of the development of education in the United States and its Teacher Preparation Programs. The chapter focuses on the Private Midwestern University and the types of certifications it offers for undergraduate and graduate students in areas, such as early childhood education, early childhood special education, elementary education, middle school education, and secondary education. Furthermore, the chapter provides information about the assessments the university used to evaluate its teacher candidates during their program and the state assessments that qualify teacher candidates for the Missouri certification.

Many variables contributed to teacher candidates' performance in the initial teacher preparation program including the GPAs in stages one and two, exit GPA, MoGEA assessments, MoCA assessments, MoPTA, MEES, and Summative assessments. Though teacher candidates' performance is important, little research exists about the

relationship between different variables and the teacher candidates' performance in the initial preparation programs. These variables will be discussed in different sections of this chapter. Also, the researcher excluded studies that used populations outside of Missouri or the variables that are different than those stated in this study. As such, the researcher created the concept mapping, shown in Figure 1, to use as a tool for driving the literature review of this chapter.

Figure 1

Literature Review Concept Mapping



An Overview of Educational Development in the United States

The history of education in the United States underwent drastic transformation between the 16th century to the 21st century. In the 17th century, education was not prominent because families needed their children to help in the farm or at home, and the children of rich families were home-schooled. The purpose of education at that time was to teach children proper morals and etiquette, in addition to reading and writing. As the population increased, each colony had at least one school accessible to rich families. Though education was not required, Harvard was established in 1636 as the first college, followed by the first academy for girls in 1787 (Wright, 2019).

In the 19th century, a shift in educational philosophy took place in the United States from a religious based education to a common state-sponsored education. This shift caused the establishment of the first public school in 1821. By 1870, public schools were present in all states; however, the economic depression and lack of funds to supply schools with teachers and materials caused many schools to close. In the 1920s, the U.S. educational system nourished and regained its activities, leading to the creation of the Association of American Universities, the Progressive Education Association, and various agreements to fund transportation to schools (Wright, 2019).

In the 1980s and 1990s, a technological revolution emerged and penetrated the classroom. Calculators and computers became advanced, smaller, and affordable, and computer-based instruction became common in K-12 classrooms and higher education. With the advancement of technology, higher education in the United States underwent dramatic changes, yet questions on the quality of education and the requirements of the modern workplace were raised (Wright, 2019).

Today, higher educational institutions have students from diverse backgrounds regardless of age, race, religion, nationality, gender, and ethnicity (Watts, 2015). Furthermore, and throughout the years, higher educational institutions have taken monumental measures to extend and enhance accessibility to higher education, including racial desegregation, coeducation, the formation of community colleges, and legislations that make higher education more affordable through scholarships, grants, and financial aids (Watts, 2015).

An overview of Teacher Preparation Programs in the United States

Teaching existed long before teacher education, and education experienced a shift from an ad hoc and voluntary mode to a public sponsored system form of delivery. Teachers in the early 19th century were able to teach at home or in church with a certain level of qualification and without any type of preparation. The early form of education ensured that students acquired skills in numeracy, basic literacy, and religious and moral speeches. During that period, teachers lacked formal training, as they needed only a modest knowledge of the subject matter to be able to teach. Teachers learned by doing and gained their teaching skills through internship training with experienced teachers (Angus, 2001; Labaree, 2021; Levine, 2006).

Afterwards, local public officials developed the common school system in the form of community schools, where teachers were considered as public employees, appointed by the school board, and acted as community agents. The main criteria for selecting teachers were their ability to maintain order among students, being local, and having an educational level similar or above the level they taught (Angus, 2001; Labaree, 2021; Levine, 2006).

In the mid-19th century, advocates demanded teacher education for teachers, creating summer teacher institutes that aimed at developing teachers' skills in both subject matter and pedagogy. Also, many community schools were established over the country, which raised the demand for teachers and for better teacher qualifications. As a result, a professional certification in teaching was required to meet the public responsibility for educating future generations, leading to the establishment of normal schools (Angus, 2001; Labaree, 2021; Levine, 2006).

Normal schools trained teachers, improved the standards for teaching, and set the standards for teaching certification. These schools were known as normal schools because they were obligated to provide qualified teachers to primary schools where students could learn various rules and norms. Since women could not go to college back then, normal schools offered them the opportunity to become teachers and build a career in teaching (Angus, 2001; Labaree, 2021; Levine, 2006).

By the 1960s, normal schools developed and achieved university status to establish educational schools for preparing teachers. The increased demand for teachers made teacher education more accessible, inexpensive, and academically modest and short in nature. These facilities allowed the graduation of many teachers with minimal professional skills and qualifications, which led to a reputation of teacher education programs as being weak (Angus, 2001; Labaree, 2021; Levine, 2006).

The aim of normal schools in the state was to supply local schools with professional, skilled, well-prepared, and educated teachers. As a result, normal schools offered teacher training for one or two years and provided prospective teachers with various liberal arts and professional courses to provide teacher candidates with

foundation courses in the arts of teaching and subject matter. Though this was a noble mission for normal schools, it created a debate between quality and quantity within the educational sphere, which conflicted with the purpose of normal schools in meeting the increased demand for teachers and resulted in the expansion of common schools (Angus, 2001; Labaree, 2021; Levine, 2006).

The debate continued regarding the role of teacher education between rigor over relevance. Elite universities established rigorous teacher education programs that provided credible academic preparation for a highly selective group of students. Other universities established teacher education programs that graduated large groups of teachers to meet the increased demand in schools. The debate also held educational schools responsible for providing weak and extraneous teacher education programs that produced unskilled and unprepared teachers (Angus, 2001; Labaree, 2021; Levine, 2006).

Consequently, normal schools were pressured to meet the increased demand for teachers, as well as meet customers' needs for quality education, and in the early 20th century, state legislatures transformed normal schools into teacher colleges. Teacher colleges then diversified their programs, and by the 1970s, normal schools formally disappeared from the scene (Angus, 2001; Labaree, 2021; Levine, 2006).

In the mid-20th century, state and private universities started adding professorship in pedagogy. Education began as an individual professorship, then evolved into departments, and later transformed into the school of education. The school of education's mission was different from that of normal schools, by preparing a much smaller number of high school teachers, researchers, and administrators, instead of meeting the increased demand for teachers. The variation in the missions caused a

dichotomy between the normal schools and the school of education at the universities (Angus, 2001; Labaree, 2021; Levine, 2006).

Thus, teacher preparation became marginal within the university context forcing prospective teachers to acquire general education and knowledge of school subjects they wanted to teach in other departments. This change made the school of education deliver only the courses related to pedagogy and take the responsibility of vocational training related to lesson planning, classroom management, and supervising student teachers. As a result, the hierarchy of the university favored academics over vocational and theoretical over practical, placing teacher education at the lowest level (Angus, 2001; Labaree, 2021; Levine, 2006).

Teacher Preparation in the State of Missouri

Teaching is difficult, and as a profession it differs from other professions, which are carried out independently from clients. Teachers cannot succeed unless students are willing to learn and comply with the classroom instructions. Hence, unless teachers are equipped with certain skills and knowledge, they will not be able to succeed in classroom practice and perform duties and responsibilities efficiently. Furthermore, teaching should not depend only on natural skills, as these skills should be sharpened by the Teacher Preparation Programs (Angus, 2001; Labaree, 2021; Levine, 2006).

The teacher's role is not all about grading tests, asking questions, or maintaining order in the classroom; teachers take responsibility in preparing future generations to be effective members in society, which requires that they be competent and well prepared. That being the case, and considering all aforementioned issues, Teacher Preparation Programs should regain their fame and character by preparing knowledgeable, skillful,

and competent teachers that are capable of undertaking this social responsibility towards future generations through their effective performance in classroom practice (Angus, 2001; Labaree, 2021; Levine, 2006).

Quality in education has several components and, according to Sallis (2002), it is related to fulfilling and exceeding the customer's needs. Quality in education requires having the knowledge, skills, competencies, and the mindset that can overcome new challenges and adopt new learning methods that can achieve continuous improvement to the educational programs in different areas. Hence, achieving quality in the Teacher Preparation Programs requires not only recognition and reward but also continuous improvement (Wright, 2019).

Missouri has a diverse higher educational system that offers a variety of degrees. The information retrieved from the Missouri Department of Higher Education and Workforce Development (MoDHEWD, 2019; 2020) website showed that the state of Missouri currently had many higher educational institutions. These institutions included 13 public four-year universities, 20 public two-year colleges, one public two-year technical college, 25 independent colleges and universities, and 145 proprietary and private career schools. According to the Missouri Department of Elementary and Secondary Education (MoDESE), 43 higher educational institutions in Missouri offered Teacher Preparation Programs leading to the Missouri teaching certification license (MoDHEWD, 2019; 2020).

Teacher Preparation Programs prepare candidates to earn teacher certification for a future career in teaching. Teacher certification is a process used in many states to ensure that teachers are well prepared to teach at the level and the subject they wish to

teach. Since education is a state and local responsibility, each state has its requirements for prospective teachers. In general, the process requires at least a bachelor's degree or higher, completion of a state-approved Teacher Preparation Program, completion of a student teaching experience, passing of knowledge and skills tests, and passing of a background check (Keys, 2020).

The Office of Educator Preparation in the Department of Elementary and Secondary Education (MODESE) sets the educators' standards and provides accreditation to public and independent academic preparation programs, leading to professional educators' certification. The State Board of Education has approved many two-year and four-year institutions that meet the standards and requirements to offer this type of preparation program. In Missouri, two-year institutions are authorized to offer the program at a preliminary stage. Candidates in these two-year institutions may transfer the credits to a four-year institution and count them toward the certification requirements (Pearson, MEGA Technical Manual, 2022).

Four-year institutions offer complete undergraduate preparation programs, and upon completion of the program, the institution recommends candidates for certification. Besides the four-year preparation program, some higher educational institutions offer graduate programs for advanced certification or alternative non-traditional certification programs. Candidates in the non-traditional programs must complete the requirements at a state-approved alternative teacher certification program at any higher educational institution in Missouri to earn the Missouri certification license (Pearson, MEGA Technical Manual, 2022).

Teacher Preparation Programs in Missouri are also responsible for equipping teacher candidates with the knowledge, skills, and competencies that meet MoDESE standards and requirements, and are required to create a value system that is conducive to learning and to the university's environment. As a result, MoDESE and Pearson developed the Missouri Educator Gateway Assessments (MEGA) program that helps assess the pedagogical skills and content knowledge required for teacher candidates to be able to teach in Missouri (LU Teacher Education- Initial Certification Student Handbook, 2021).

Teacher Preparation at the Private Midwestern University

The Private Midwestern University was founded in 1827 and is the second oldest higher educational institution in the state of Missouri. Initially, the institution offered education for females only, but has now progressed to offering undergraduate, graduate, and doctoral degrees for both females and males through nine colleges and schools. The *U.S. News and World Report* released in September 2019 ranked the university as number 327 among national universities. The university is nationally recognized, and its mission is to enhance students' knowledge and skills through quality and professional preparation. Thus, the university delivers comprehensive education through innovative programs, connects a diverse community of team players, and instills respect and work ethics within the university environment (LU, Mission Statement, 2021).

The aim of the Teacher Education Programs at the Private Midwestern University is to prepare teacher candidates, according to their certification choice and admission area, for a career in teaching in the state of Missouri. These areas include early childhood education, special education, elementary education, middle school education, and

secondary education. The university aims to provide teacher candidates with a quality learning experience and encourages them to improve lessons and teaching strategies, so that they perform well as highly qualified educators in real-life practice (LU, Initial Certification Degrees, 2021).

The Teacher Preparation Programs (TPPs) at the Private Midwestern University are accredited by the Missouri Department of Elementary and Secondary Education (MoDESE) and the Initial Teacher Education Program is accredited by the Teacher Education Accreditation Council (TEAC) through the Council for the Accreditation of Educator Preparation (CAEP). Students enrolled in the College of Education and Human Services may select either to complete teacher education programs that qualify them for the Missouri teaching certification or complete the Master of Arts in Education without certification (LU, Master of Arts in Teaching, 2021).

The College of Education and Human Services (COEHS) at the Private Midwestern University offers undergraduate and graduate teaching certification programs to prepare teacher candidates for the Missouri state certification. The undergraduate program has various areas of specialization including early childhood and special education from birth to grade 3, elementary education for grades 1-6, middle school education for grades 5-9, secondary education for grades 9-12, and K-12 education and special education.

The K-12 certification is offered in different areas, including Arts and Design, Music, Physical Education, Spanish, and Special Education. The graduate teaching program offers a Master of Arts in Teaching (MAT), and the certification specializes in early childhood education from birth to grade 3, elementary education for grades 1-6, and

middle school education for grades 5-9. The middle school certification is offered in different emphases including business, English language, mathematics, science, and social science (LU, BA Offered in Traditional Formats, 2021).

The early childhood certification program provides teacher candidates with a Bachelor's Degree in Arts (BA) and is offered in a traditional format. The program requires teacher candidates to complete 74-76 hours in early childhood education and 26-27 hours in additional coursework. The program provides teacher candidates with the academic and school experience needed to work with children from birth to grade 3, allowing them to work in the field with young children and experienced teachers. Undergraduate students are required to pass all sections in the Missouri General Education Assessment (MoGEA) to be admitted in the Teacher Education Program and are also required to pass the Missouri Content Assessment (MoCA) to be placed for student teaching. The MoGEA and MoCA assessments are both certification requirements (LU, Initial Certification Degrees, 2021).

The early childhood special education certification program provides teacher candidates with various emotional and intellectual development courses that equip them with different teaching and learning styles for children with disabilities, to ensure accessibility and quality education. The program requires teacher candidates to complete all the credit hours required for early childhood education, in addition to 19 credit hours of courses needed for certification. The elementary certification for grades 1-6 requires teacher candidates to take different courses in teaching methods and philosophies, in addition to field experience, which helps teacher candidates apply the knowledge and

skills they learned in the program to the elementary classroom and become qualified educators (LU, Initial Certification Degrees, 2021).

The middle school certification for grades 5-9 is offered in a specific content area that allows teacher candidates to teach one or two subjects. The Private Midwestern University offers middle school certification in business, English/language arts, mathematics, science, and social science. The Private Midwestern University requires teacher candidates to complete 48-50 credit hours in middle school education, 3-6 credit hours in teaching methods, complete and courses related to the psychology of teaching and learning, in addition to other courses associated to the subject area they intend to teach. Teacher candidates are also required to participate in multiple observations and field experiences, as this allows them to work with experienced teachers and adolescents. Moreover, teacher candidates must pass the proper Missouri Content Assessment before being placed for teacher candidates (LU, Middle School Education, 2021).

The secondary certification for grades 9-12 is also offered in specific content areas, and teacher candidates must complete 36-38 credit hours in secondary education, 3-6 credit hours in teaching methods, and complete courses in teaching philosophies, in addition to courses for the specific subject they intend to teach. The Private Midwestern University offers secondary certification in various subjects, including biological sciences, business administration, chemistry, English, history, and mathematics. Teacher candidates must also pass the proper Missouri Content Assessment before being placed for student teaching (LU, Secondary Education, 2021).

The K-12 education and special education certification is offered in various areas, including art and design, instrumental certification, vocal/choral certification, physical

education, and special education. Teacher candidates in these programs are required to complete courses in educational philosophies, pedagogy, and research, which helps prepare them for classroom practice. Teacher candidates are also required to complete field experience that allows them to work one-on-one with children, adolescents, and young adults under the supervision of experienced educators (LU, BA Offered in Different Formats, 2021).

The Master of Arts in Teaching (MAT) is a graduate program in which teacher candidates can complete the certification requirements with the undergraduate coursework. However, teacher candidates must complete the graduate coursework to obtain the MAT degree. In this case, teacher candidates must substitute the undergraduate coursework with graduate coursework to meet both the certification and graduate degree requirements. The MAT is a 45-79-credit hour program depending on the specialization area; however, DESE may require further coursework in the content area to be eligible for certification (LU, Master of Arts in Teaching, 2021).

Evaluation of Teacher Preparation Programs

Teacher Preparation Programs (TPPs) are educational programs that provide teacher candidates with practical classroom experience and fundamental knowledge on pedagogy and the subject matter that they will teach. Though teacher candidates can gain their teaching competencies through real classroom practice and continuous learning, Teacher Preparation Programs are considered an important contributor to the quality of instruction (Feuer et al., 2013). Teaching does not depend only on the teachers' natural skills, rather these skills should be sharpened and developed by Teacher Preparation Programs to meet MoDESE standards to help create a value system that is conducive to

learning (Katnik, 2014). Therefore, evaluating Teacher Preparation Programs is a vital process in ensuring that teachers are ready to teach and contribute to students' learning in classrooms.

Since teachers' effectiveness is a public concern and an important factor in schools, many voices have called for higher standards within Teacher Preparation Programs to produce effective teachers. Based on this, the Council for the Accreditation of Teacher Preparation Programs imposed rigorous standards for the accreditation of these programs to ensure their effectiveness in the preparation of teacher candidates. Concurrently, administrators of Teacher Preparation Programs were accountable for making important decisions related to which students to admit, assessing their progress, and deciding which students are eligible for state certification. Administrators of these programs were also expected to maintain ethical and professional responsibility in providing reliable and valid information that helps in making effective and informed decisions regarding the improvement of these programs (Brabeck et al., 2014).

In 1983, legislators in the state of Missouri directed the board of education to create a performance evaluation for each teacher employed by each school district in the state. Consequently, DESE created a performance evaluation tool that is used by 80% of the state's districts for teacher evaluation. In 2010, Missouri school districts were directed to adopt more formal teaching standards to improve student performance. As a result, new guidelines for the preparation of teachers were developed and teachers' standards and quality indicators were established to serve as the foundation of the Missouri Educators Evaluation System (MEES). The main objective of this process was to develop an evaluation system that can measure teachers' performance fairly and accurately to

increase the effectiveness of teachers' performance in real classroom practice (Katnik, 2014).

Paul Katnik (2014), in his pilot project about "a study of Missouri's educator evaluation system and its efforts to increase teacher and leader effectiveness," explored the relationship between the MEES evaluation system and the performance of teachers and administrators to determine if the use of MEES resulted in a positive performance and improvement in student learning. Katnik (2014) discussed the sources of information for the MEES evaluation system and classified it into three frames: practice, commitment, and impact. The practice frame is related to the quality of teaching, and the information for this frame is gathered through observation that shows the teachers' knowledge and skills. The commitment frame is related to the quality of the teacher, and information is gathered through teachers' credentials, preparation, and artifacts. The impact frame is related to the outcome data and results. All three categories work interdependently to establish the measure of effectiveness (Katnik, 2014).

Katnik's (2014) study showed a positive change and growth in teacher and administrator performance regardless of a particular indicator on which they focused. It also showed that the positive change in teachers' performance was accompanied by a positive change in students' learning. This being the case, it is useful to study, explore, and analyze the variables in the historical data of undergraduate and graduate Teacher Preparation Programs at the Private Midwestern University to find the relationship between various variables in the historical data and the MEES evaluation tool.

Assessing the effectiveness of Teacher Preparation Programs also requires utilizing other assessment tools that employ various sources of data, including teaching

observation, standardized tests, test scores, and the technical quality of tests. This technical quality is related to the validity of tests scores (i.e., the meaningful association of test results and the set of test scores) and the uses and interpretation of these scores. Fairness and reliability of tests are important components of their validity; if tests are unfair, the data obtained from their scores will be unreliable. Since reliability is the precision and consistency of measurements, tests that provide consistent results are considered reliable (Brabeck et al., 2014).

Many methods are used in the assessment of Teacher Preparation Programs, including the surveys of teachers' performance, value added assessments, and the standardized observation protocol. The teacher preparation accreditation standards require that surveys are a part of program approval, as they provide feedback about the program and the performance of teacher candidates. The value-added assessment is related to year-end student scores that are adjusted regularly, based on different points in the program and used as a more precise estimate for a cohort of teacher preparation graduates than for individual teachers, due to the aggregation of scores. Standardized observation scores provide formative feedback about the preparation programs, allowing for a more informed decision-making process in improving these programs relative to non-standardized observation (Brabeck et al., 2014).

Summative and formative types of feedback are other forms of assessments that help improve Teacher Preparation Programs. Summative evaluations are formal assessments that take the shape of quizzes, written tests, and/or standardized tests, while formative evaluations are informal assessments that take the shape of presentations, projects, or homework. The formative assessment provides information that helps predict

how teacher candidates will perform in a summative assessment. It also provides feedback to the faculty members and the administrators of preparation programs on program improvement (Brabeck et al., 2014).

The improvement of Teacher Preparation Programs requires the administrators of these programs to know in what direction the program should move. This direction is predicted based on having valid and reliable information about how the program is doing. The validity of the collected summative and formative information is determined when the administrators decide the extent to which the measure is used in the evaluation process of these programs, which depends on the quantitative and qualitative data collected about the program (Brabeck et al., 2014).

Among the variables that can be used in the program evaluation are the observation of teacher candidates during their teaching experience, surveys of teacher candidates, surveys of their employers after graduation, and different assessments that show the teacher candidates' skills, knowledge, and understanding of the content knowledge of the subject they will teach (Brabeck et al., 2014). All these elements are brought together, explored, and analyzed in this study to make informed conclusions about how well the Teacher Preparation Programs are doing at the Private Midwestern University.

Appraising the Teacher Preparation Programs at the Private Midwestern University and the evaluation tools used by these programs to evaluate teacher candidates during their study in these programs will help reveal the effectiveness of these programs in providing teacher candidates with the skills, knowledge, and competencies needed to perform effectively and succeed in the classroom. It will also help in concluding whether

the evaluation tools used are robust enough to effectively assess teacher candidates and if they are good indicators of their future performance in real-life classroom practice. Finally, the evaluation of these programs will help predict the future performance of teacher candidates and discover the ways that help improve these programs and enhance teacher candidates' performance in various state assessments.

The Missouri State Assessments

Teaching is a vital element in the educational system and there is a large demand for teachers in all levels of education, particularly K-12. The educational system in Missouri and the higher educational institutions recognize the effect of the critical role teachers play in making both the future generation and the educational system grow and thrive. As a result, the Missouri Department of Elementary and Secondary Education and the Teacher Preparation Programs at higher educational institutions expect teacher candidates to perform well in the preparation programs and in the assessments to guarantee their effectiveness inside and outside the classroom (Dynarski, 2014).

Teacher Preparation Programs form a good portion of the revenue in higher educational institutions, and 2014 statistics showed that 200,000 students had graduated annually in the United States from 2,000 preparation programs. The main goal of the preparation programs is to provide candidates with the knowledge and skills that help them succeed in the various assessments needed for obtaining the certification. Though passing the various assessments imposed by both the Missouri Department of Elementary and Secondary Education and the preparation programs at the higher educational institution indicated that teacher candidates are ready to perform well in the classroom, this is not reflected in real-life classroom practice (Dynarski, 2014).

It is well known that the local government in each state is responsible for the issuance of teacher certification, and each state ensures that teacher candidates are well prepared to teach certain subjects in specific educational levels. Though each state demands its own testing requirements, some of these requirements may be waived if the teacher candidate already completed the preparation program, has a license from a different state or country, or is enrolled in a graduate-level program, or has a doctorate degree. The state also entails teacher candidates to meet the testing requirements for teacher certification and for the type of preparation offered at the higher educational institution (Keys, 2020).

Moreover, teacher candidates need to ensure that the assessments they perform are in line with the Missouri educational and ethical standards. Teacher candidates must complete some assessments before entering the Teacher Preparation Program, while other assessments must be completed during and after completing the preparation program. Once all assessments are carried out and the teacher candidates achieve passing scores, the Teacher Preparation Program at the higher educational institution will request MoDESE to grant teacher candidates the certification that allows them to move forward in their teaching career (MEGA, 2021).

Teacher Preparation Programs must provide quality education to teacher candidates, based on the national standards required by MoDESE. As such, MoDESE and Pearson developed the Missouri Educator Gateway Assessments (MEGA) to assess the teacher candidates' pedagogical skills and content knowledge. The MEGA assessment covers three main categories: The Missouri Educator Profile (MEP), the Missouri General Education Assessment (MoGEA), and the Missouri Content Assessments

(MoCA). A paraprofessional assessment is also required for candidates seeking to work in special education settings (MEGA, 2021).

The main objective for developing the MEGA assessment is to measure the teacher candidates' content knowledge, pedagogical knowledge, dispositions, and work styles. The assessments are required from teacher candidates seeking Missouri certification and are composed of different tests, including the Missouri Educator Profile (MEP) assessment, the Missouri General Education Assessment (MoGEA), the Missouri Content Assessments (MoCA) in each certification field, the Paraprofessional assessment, and pedagogy assessments for middle and secondary school educators (MEGA, 2021).

All MEGA scored tests are computer-based and are held in a Pearson testing center year-round, with seats being first-come, first-served. The registration process for MEGA tests is the same for all tests, and teacher candidates can perform these tests online through the MEGA website. However, the sooner the candidates register for the tests the better to assure a test date and location that works best for them. Candidates taking the test for the first time need to create an account on the MEGA website and pay the testing fees, which vary from test-to-test (Keys, 2020).

Each MEGA test has its own passing score and length. Many content assessments can last for 2 to 2.5 hours and have a cutoff score of 220. Scores are released within 2 to 6 weeks depending on when the candidate completes the test. In September 2013, MEGA determined the type of tests needed from teacher candidates, based on what candidates seek for their future career. The State Board of Education determines the qualifying score for each test, which sometimes varies from year-to-year, and MEGA announces it to all

teacher candidates. The MEGA program is aligned with Missouri and the National Standards and is integral to Missouri Department of Elementary and Secondary Education (MoDESE, MoGEA & ACT Scores, 2022).

The MEP is an un-scored, internet-based assessment that evaluates the teacher candidates' work habits, work preferences, and style, to help understand and improve their work. The MEP assessment is optional and is not used for admission into the preparation program, rather it is used to compare teacher candidates' current work habits with effective educators (MoDESE, Routes to Certification, 2021). There is no passing or failing score for the assessment and candidates will receive the result immediately upon finishing 192 survey questions. Candidates may perform the assessment prior to entering the traditional or alternative preparation programs. Teacher candidates are expected to complete the questions on the MEP assessment truthfully to accurately assess their work style and plan for their future professional development (MoDESE, MEGA Assessments-Technical Manual, 2022).

Additionally, the paraprofessional assessment is required for teaching assistants seeking to work in Special Education or a Title I setting that has less than 60 semester hours. The Paraprofessional assessment is a multiple-choice assessment and is performed by appointment, year-round, on a first-come first-served basis. The paraprofessional assessment measures the competencies of teacher candidates and consists of four domains including reading, writing, mathematics, and instructional support. The passing score for the assessment is 220 with equal weights among domains. The test score is released within three weeks of the testing date (MoDESE, MEGA Assessments-Technical Manual, 2022).

Missouri General Education Assessment (MoGEA)

The MoGEA is a mandatory basic skills assessment that began in September 2013 and replaced the College Base (CBASE) test. The assessment measures teacher candidates' knowledge in five major academic subject areas across four separate subtests: reading comprehension and interpretation with test code 066, writing with test code 067, mathematics with test code 068, and science and social studies with test code 069. The MoGEA 066, 068, and 069 tests consist of multiple-choice questions, while the MoGEA 067 test is a written assignment. The test is a Pearson computer-based assessment and teacher candidates must obtain a passing score to gain admission in a Teacher Preparation Program at any higher educational institution in Missouri. The passing scores required for the MoGEA are determined by the Teacher Preparation Program at the higher educational institution. The cut score for the Private Midwestern University in this study is 220 (MEGA Assessments-MoGEA, 2022).

The MoGEA tests are internet-based, year-round, and available by appointment on a first-come, first-served basis. Candidates have the option to complete all four subtests in one session, or complete each subtest independently, but must pass all of the four subtests. When the teacher candidates complete the assessments and pass the four MoGEA subtests, the scores are released to the Missouri Department of Elementary and Secondary Education, as well as the preparation program at the higher educational institution, which the candidates noted when registered. The score reports are released within 2 to 6 weeks, and teacher candidates can access their results on the MEGA official website (Keys, 2020).

Since teacher candidates can take the four subtests in one sitting or separately, teacher candidates must select the one sitting option only once and when first opening the account with MEGA. Also, registering for a retake is like taking the test for the first time, but candidates need to wait at least 30 days before taking the test again. As a final point, the MoGEA assessments with codes 066-069 will be replaced by MoGEA assessment code 081 during the 2021-2022 program year (MoDESE, MEGA Assessments, 2021; 2022).

The score reports for reading, math, science, and social studies subtests are scaled within the range of 100-300 points. The teacher candidates' competency in each subject is reflected as a bar graph that explains how well the candidate performed relative to state benchmark scores. The score for the writing essay is also scaled within the range of 100-300 points, with feedback on the strengths and weaknesses of the writing. The numerical score for writing is 4 for strong writing skills, 3 for average writing skills, 2 for limited writing skills, and 1 for weak writing skills. A score of "U" means that the candidate's response was unrelated to the assignment, or the response was unable to be scored, and a score of "B" means that the response was blank, all of which is reflected in the score report. The passing cutoff scores for MoGEA may change from year to year, and teacher candidates must check with their preparation program for updates (MoDESE, MEGA Assessments-Scores, 2022).

Missouri Content Assessments (MoCAs) and Exit Survey

Before September 2014, Missouri and many state certifications required teacher candidates to complete the Praxis II series of tests. The Praxis II series measures the teaching skills, as well as the knowledge of specific subjects that K-12 candidates will teach. Based on this, candidates entering the teaching profession were required to take the Praxis Subject Assessments tests as part of the teacher licensing and certification process (MoDESE, MEGA Assessments-Content Area, 2022).

However, effective August 31, 2014, the Praxis tests were no longer required and were replaced by the Missouri Content Assessments (MoCAs). The content area assessments are exit assessments that must be completed by teacher candidates in all areas of certification. The exit assessment is aligned with state and national standards for school and/or district leaders and measures the knowledge necessary for teachers, counselors, librarians, principals, and superintendents. The test is computer-based and performed at a Pearson center (MoDESE, MEGA Assessments-Content Area, 2022).

The Missouri Standards-Based Performance Assessment is designed to demonstrate performance in content, coursework, and field experience during candidates' internships. The Office of Educator Quality-Educator Preparation in collaboration with the Missouri Educator Evaluation System/Annual Performance Report (MEES/APR) Workgroup, School Counselor Workgroup, Missouri Professors of Education Administration Workgroup, and the School Librarian Workgroup have identified a passing score for the performance assessments for the 2021-2022 academic year to be a score of 220 on the scale of 100-300 (MoDESE, MO Performance Assessments, 2022).

The performance assessments will be scored at the educator preparation level and the scores include the MEES for Teacher Candidates – Combined Summative Score for University Supervisor and the Cooperative Teacher of 42 points, MEES for School Counselor Candidates – Combined Summative Score for US and Site Supervisor of 25 points, MEES for School Librarian Candidates – Combined Summative Score for US and Site Supervisor of 28 points, and MPEA School Leaders Performance Assessment of 10 points. Candidates must meet or exceed the minimum passing score to be recommended for certification (MoDESE, MO Performance Assessments, 2022).

Teacher candidates must register via the Missouri Educator Gateway Assessments website and must complete different MoCA tests related to early childhood education, elementary education, middle school education, secondary education, K-12 education, special education, student services, the professional knowledge test, and the school and district leadership test. The type of tests needed depend on candidates' areas of specialization, career stage, and goals. Teacher candidates must obtain a passing score of 220 on the scale of 100-300 to be able to earn the certification (MoDESE, Routes to Certification, 2021).

If candidates are new to the teaching career and are taking the traditional route to certification, candidates must pass the MoGEA to gain entry to state-approved Teacher Preparation Programs. At the end of the program, candidates need to complete the content assessment tests to become certified. For example, if candidates want to earn the certification to be able to teach elementary education, they need to pass the Elementary Education Multi-Content Assessment. This assessment consists of four subtests: English Language Arts, Math, Science, and Social Studies. If candidates want to teach middle

school math, they need to pass the Middle School Education Mathematics content assessment to become a certified teacher (MEGA, 2021).

Each content assessment is a multiple choice, internet or computer-based exam with a passing cutoff score of 220, except for the Elementary Mathematics Specialist (065) exam, which has a passing score determined by the Missouri Department of Elementary and Secondary Education. However, the four foreign language content assessments (Chinese-Mandarin, French, German, Spanish) follow different score report schedules. Also, the MEGA School and District Leadership test follows their own score reporting schedule (MoDESE, MEGA Assessments-Content Area, 2022).

Candidates enrolled in the preparation program at any higher educational institution can seek the program advisor's assistance in making decisions related to the tests required for certification. The test scores with instructions on interpreting the results are reported directly to the candidates' MEGA account. Missouri Department of Elementary and Secondary Education will also receive the test scores and candidates can request that results be sent to their emails and the college, university, or institution of their choice (MoDESE, Routes to Certification, 2021).

Missouri Pre-Service Teacher Assessment (MoPTA)

MoPTA was developed by DESE in 2013, piloted in 2014, and launched in the fall of 2015 (Nichols et al., 2021). The MoPTA assessment was an evidence-based performance assessment and was designed to assess the instructional capability of pre-service teachers before they receive the teaching license. The MoPTA consisted of four tasks, including one formative and three summative tasks that assessed the ability of

teacher candidates' impact on student learning, based on the MoPTA tasks and the Missouri Teacher Standards and Quality Indicators (MEGA, MoPTA Assessment, 2016).

There were two versions of the MoPTA: one where teacher candidates are allowed to record videos of their students in the teaching classrooms, and another where teachers were not permitted to record their students in the teaching classrooms. The choice for video or non-video was made at the point of initial registration. Tasks 1 through 3 for both versions are the same; however, task 4 is different and teacher candidates need to check with their Teacher Preparation Programs regarding the type of version they must take. The teacher candidates performed the MoPTA test at ETS and teacher candidates were not allowed to change the test if any one of the summative tasks was submitted (MEGA, MoPTA Assessment, 2016).

Each of the MoPTA tasks was constructed during the teacher candidate's teaching experience and focused on teaching, planning, decision making, and instruction. Teacher candidates were required to provide a variety of artifacts when submitting each task. Teacher candidates were also required to submit task 1 at the beginning of their teaching experience, while tasks 2 through 4 should be submitted before the end of their teaching experience. Teacher candidates seeking certification in early childhood, early childhood special education, or elementary education were required to select early literacy or literacy as the content focus for task 2, and early numeracy or mathematics as the content focus for task 3. If teacher candidates did not make the selection before performing the task, they obtained a zero score and did not pass the MoPTA assessment (MEGA, MoPTA Assessment, 2016).

Though task 1 of the MoPTA assessment was an un-scored formative task that was not part of the cumulative score of the MoPTA performance assessment, teacher candidates were still required to complete and submit this task before tasks 2, 3, and 4. Teacher candidates in this task were required to submit a seven-page written commentary on how they familiarized with their students and the learning environment, in addition to another seven pages regarding the four artifacts that demonstrated how they obtained knowledge of students and the learning environment (MEGA, MoPTA Assessment, 2016).

Teacher candidates were also required to submit a written commentary of seven pages for task 2 in addition to nine pages regarding six artifacts that supported their responses, while for task 3 they submitted a written commentary of eight pages in addition to eight pages regarding seven artifacts that represented the lesson plan, differentiated lesson plan for focused student 1 and 2, work sample from any class member, and instructional artifact. Teacher candidates were required to submit a written commentary of nine pages for task 4 in addition to four pages related to four artifacts that supported their responses, and one, 15-minute unedited video (MEGA, MoPTA Assessment, 2016).

Task 1 was evaluated by the Teacher Preparation Program, while tasks 2, 3, and 4 were scored by two trained DESE raters using a four-point rubric. MoPTA tasks 2, 3, and 4 consisted of three or four steps that addressed planning, implementation, working with focus students, and a reflection. The step in each task was scored 1 to 4 points with a total of 12 points for task 2, 16 points for task 3, 32 points for task 4, and the final score was a compilation of all the steps with a cumulative of 60 points. The score-report

provided the teacher candidates with quantitative and qualitative feedback on each task. However, if the teacher candidates did not receive a passing score on the assessment, teacher candidates needed to work on the lowest scored task and resubmit it within three weeks (MEGA, MoPTA Assessment, 2016).

Missouri Educator Evaluation System (MEES)

MoPTA was a mandatory assessment in the state of Missouri until Spring 2018, when DESE informed the Teacher Preparation Programs that the MoPTA passing score was no longer required. Since Teacher Preparation Programs aim to prepare teacher candidates to teach in Missouri, they required a performance assessment that is rigorous, valid, and reliable to inform and improve the teacher candidates and the program practice. Unfortunately, MoDESE considered that MoPTA did not achieve this goal and was not a high-quality performance assessment for its educators (Nichols et al., 2021). Consequently, MoDESE introduced a new assessment tool for teacher candidates, known as Missouri's Educator Evaluation System (MEES).

The reasons behind this expiration included the cost of this assessment, which added financial burden on teacher candidates, and the lack of qualified educators to score the assessment, which required recruiting scorers outside of Missouri that resulted in a delay for the scoring of the MoPTA assessment. In addition, there was an inconsistency in videotaping the students in the classroom under task 4 of the MoPTA, which made several local school districts raise objections over the use of MoPTA in their classrooms and resulted in producing an alternative for task 4, making the assessment unreliable, invalid, and untenable (Nichols et al., 2021).

The MEES was developed by the educators across the state of Missouri, based on the belief that educational programs at higher educational institutions must maintain continuous progress in their educational programs to be able to achieve improvement in students' performance in real world practices. This progress is attained through the constant evaluation tools they use that lead to continuous improvement. Accordingly, MEES became a required performance assessment to teacher candidates across the state of Missouri. However, the Teacher Preparation Programs (TPPs) at the higher educational institution need to determine the required artifacts that teacher candidates must provide to show that they met each standard at an acceptable level (MoDESE, MEES Protocols and Forms, 2022).

The Missouri Standards for the Preparation of Educators (MoSPE) established 36 quality indicators across nine standards and required teacher candidates to be evaluated against these nine standards. Teacher candidates are assessed during their teaching experience on each of the nine standards using the Missouri Educator Evaluation System (MEES). Accordingly, each of the nine standards receive one score from the Cooperating Teacher and one score from the University Supervisor. Based on these nine standards, MoDESE designed another evaluation tool, known as the Teacher Candidate Assessment Tool (TCAT) that is used to help assess the first-year teacher and analyze their growth over-time on each standard. The use of TCAT is optional, and Teacher Preparation Programs in higher educational institution may alternatively use their own system for this purpose; however, the standards and quality indicators must remain unchanged (MoDESE, MEES Protocols and Forms, 2022).

The MEES Rubric is analytic, not holistic, and has been provided for each of the nine standards. The skilled level of performance expected from teacher candidates at the end of their teaching experience is highlighted. Teacher candidates are scored based on a 0 to 4 scale; hence, the scores given by the Cooperating Teacher (CT) and the University Supervisor (US) assigned by the Teacher Preparation Programs to evaluate teacher candidates are equally weighted. Consequently, the CT and US should determine the teacher candidate's score based on what they observe as evidence in the classroom (MoDESE, MEES Protocols and Forms, 2022).

The University Supervisor is required to complete the assessment at least once every three weeks for each teacher candidate; however, the more formative observations completed, the better for teacher candidates. The Cooperating Teacher and the University Supervisor independently submit the score for each of the nine standards and it should reflect the degree to which the teacher candidate met the expectations detailed in the MEES. The minimum combined score required for certification for years 2018-2019 was 24 points, while for years 2019-2020 and beyond, the score was 42 points. Teacher candidates must meet or exceed the minimum passing score to be recommended for certification (MoDESE, MEES Protocols and Forms, 2022).

The Private Midwestern University Assessments

All schools depend on the quality of their teachers, and the preparation of teacher candidates is a critical and challenging task for Teacher Preparation Programs. Teacher candidates must possess general academic knowledge, pedagogical skills, and specific knowledge to the content area they will teach. Teacher candidates can expect a multi-assessment process that includes several types of assessments during their period of study

in the Teacher Preparation Program, and these assessment processes often last throughout the student teaching experience. The first assessment the teacher candidate will experience can be general and is normally required before the admission into the Teacher Preparation Program.

Admission Stages and Required Assessments and GPAs

The Curriculum and Instruction Program Council (CIPC) represents all schools at the Private Midwestern University and divides the admission in the undergraduate and graduate Teacher Preparation Programs into three stages. Stage one is when the teacher candidate meets the university admissions standards, has been accepted to the undergraduate or graduate Teacher Preparation Program at the university, has a cumulative GPA of 3.0 in the bachelor's degree for MAT teacher candidate, has a GPA of 3.0 in the content area and professional education coursework, has a Program Plan from the advisor, shows competency in communication, attains a cut score of 220 on MoGEA for the undergraduate teacher candidate, and all materials are uploaded and accepted in the Foliotek system (LU, Admission Requirements, 2021).

Stage two is when teacher candidates submit the information sheet, resume, philosophy of education, program plan from the advisor, TB test results, MoCA passing score, three recommendation letters, travel waiver, confidentiality agreement, substitute certificate, professional liability insurance, and background check. Once all these documents are successfully uploaded and accepted in the Foliotek system, the teacher candidates will be recommended to the Curriculum and Instruction Program Council (CIPC) of the university for formal admittance into the Teacher Education Program (LU, Admission Requirements, 2021).

In stage three, teacher candidates must have earned a GPA of 3.0 in the content area and professional education coursework, successfully completed student teaching courses, education courses, seminar sessions, portfolio requirements as identified by the university, and completed the Missouri Educator Evaluation System (MEES) with a satisfactory score to be recommended for certification. The undergraduate and graduate Teacher Preparation Programs lead to certification in areas, including early childhood education, elementary education, middle school education including business, English, mathematics, science and social science, and secondary school education in areas including biological sciences, business, chemistry, English, mathematics, and social science. Furthermore, the Teacher Preparation Programs lead to certification in grades K-12 education in areas including art, music-instrumental, music-vocal, physical education, and special education (LU, Admission Requirements, 2021).

Each state has its own requirements for certification, and upon completing the requirements for the degree program at the university and passing the state exit assessment, teacher candidates can apply for certification to teach in Missouri. Additionally, the MoGEA passing score is required only for the undergraduate teacher candidates, and the ACT composite score must be 20 with a reading score of 21 and a math score of 19. Also, teacher candidates must attend a mandatory informational meeting in the semester prior to student teaching, which is normally scheduled in April for Fall student teaching and November for Spring student teaching. Teacher candidates must also attend the seminar classes scheduled in the first week of January for Spring student teaching or the second week of August for Fall student teaching (LU, Student Teaching Handbook, 2021-2022; Admission requirements, 2021).

Foliotek System and the Teacher Candidate's Portfolio

The teacher candidate's assessments and application process start with the purchase of the Foliotek system and the registration in it for the electronic submission of the assignments and application. Both the teacher candidates and the education instructors must have access to the Foliotek system through the Canvas platform. Teacher candidates must upload all components of the application, including candidate's information template and resume, that reflect the candidate's philosophy of education. Also, the teacher candidate needs to upload the program planning sheet in addition to MoGEA and ACT composite passing scores (LU, Student Teaching Handbook, 2021).

The Foliotek is an online portfolio management system used by the College of Education and Human Services. Teacher candidates in different educational programs use Foliotek for the storage and evaluation of portfolios, to request observation, practicum, field placement, and internship placement, and to store important documents, such as assessment scores and background checks. Teacher candidates create a Foliotek account only by accessing Canvas through their education professors and should upload all required documents and assessment results including MoGEA and MoCA, based on their progress through the program (LU, Teacher Education-Initial Certification, 2021).

Teacher candidates must be admitted to the Teacher Education Program to be eligible for student teaching. Teacher candidates need to complete a portfolio through Foliotek to demonstrate their knowledge and understanding of the MoSPE standards before student teaching. The Portfolio is completed with the Missouri Educators Evaluation System (MEES) and the university uses the portfolio as a source of evidence that teacher candidates have the skills and knowledge articulated in the teaching

standards. The Private Midwestern University provides a portfolio matrix that articulates which standard is associated with which course, resulting in spreading the burden to only one standard per class (LU, Teacher Education- Initial Certification, 2021).

Rationale/Reflection Assignment

The student teaching experience is important for the preparation of prospective classroom teachers, and the Rationale/Reflection (R/R) assignment is a program requirement. Teacher candidates are required to write a reflective essay for each course and must supply at least one artifact for each standard that demonstrates proficiency in the skills and knowledge outlined in the standard. The artifact can be an assignment or assessment, or activity completed in the course. The R/R is correlated with the MoSPE standards and must be submitted for each standard as opposed to each quality indicator. The R/R assignment describes the artifact and its relation to the standard and reflects on the importance of the standard for the certification area (LU, Teacher Education- Initial Certification, 2021).

Student Teaching and MEES Assessment

During student teaching, teacher candidates must teach in an assigned school and build a professional relationship with the Cooperating Teacher and the University Supervisor in serving the students. The Missouri Educators Evaluation System (MEES) is used to assess teacher candidate performance during the student teaching experience. The requirements for student teaching set by the College of Education and Human Services at the Private Midwestern University follows the regulations established by the Missouri State Department of Education. These requirements and regulations are set to ensure the competency of each teacher licensed to teach in the state of Missouri. Furthermore, the

conceptual framework for the Teacher Preparation Programs at the Private Midwestern University is driven by the mission statement of the university and the nine Missouri Standards for Preparation of Educators (MoSPE; LU, Student Teaching Handbook, 2021-2022).

The Missouri Educator Evaluation System (MEES) contains 36 quality indicators across nine standards. The first standard is related to content knowledge and perspectives aligned with appropriate instruction and has five quality indicators concerning the content knowledge and academic language, engaging students in subject matter, disciplinary research and inquiry methodologies, interdisciplinary instruction, and diverse social and cultural perspectives. The second standard is related to understanding and encouraging student learning growth and development, and has six quality indicators, including cognitive/social/emotional/ and physical development, student goals, theory of learning, meeting the needs of every student, prior experiences, learning styles/multiple intelligences/strengths/needs, and language/culture/family/knowledge of community values (LU, Student Teaching Handbook, 2021-2022).

The third standard is related to implementing the curriculum, and has three quality indicators concerning the implementation of curriculum standards, developing lessons for diverse learners, analyzing instructional goals and differentiated instructional strategies. The fourth standard is related to teaching for critical thinking, and has three quality indicators concerning the instructional strategies leading to student engagement in problem-solving and critical thinking, appropriate use of instructional resources to enhance student learning, and cooperative learning (LU, Student Teaching Handbook, 2021-2022).

The fifth standard is related to creating a positive classroom environment for learning, and has three quality indicators concerning classroom management/motivation and engagement strategies and techniques, managing time/space/transitions and activities, and classroom/school and community culture. The sixth standard is related to utilizing effective communication, and has four quality indicators concerning verbal and nonverbal communication, sensitivity to culture/gender/intellectual/ and physical differences, learner expression in speaking/writing and other media, and technology/media communication tools (LU, Student Teaching Handbook, 2021-2022).

The seventh standard is related to the use of student assessment data to analyze and modify instruction, and has six quality indicators concerning the effective use of assessments, assessment data to improve learning, student led assessment strategies, the effect of instruction on individual/class learning, the communication of student progress and maintaining records, and the collaborative data analysis process. The eighth standard is related to professional practice, and has three quality indicators concerning self-assessment and improvement, professional learning, and professional rights/responsibilities and ethical practices (LU, Student Teaching Handbook, 2021-2022).

Finally, the ninth standard is related to professional collaboration, and has three quality indicators concerning the roles/responsibilities/and collegial activities, collaborating with historical cultural/political/social context to meet the needs of students, and cooperative partnerships in support of student learning. The nine standards and their 36 quality indicators correspond to different courses and assessments throughout the degree depending on the teacher candidate’s emphasis, specialization, and

the type of certification the teacher candidate is requiring (LU, Student Teaching Handbook, 2021-2022).

During student teaching, the teacher candidate is expected to carry the full load of the Cooperating Teacher for a minimum of two full weeks per experience and four full weeks per 16-week experience. Teacher candidates are expected to complete 80 hours of direct teaching and will be responsible for duties including attendance, grading, make-up work, in-school suspension work, after school and hall duty, planning and implementing at least one unit lesson plan, workshops, and meetings, on top of their classroom teaching (LU, Student Teaching Handbook, 2021-2022).

The Cooperating Teacher and the University Supervisor must complete the evaluation for Teacher Candidates using the MEES evaluation tool. Teacher candidates are required to pass the MEES evaluation with a determined cut score for initial certification. The Private Midwestern University would recommend the Teacher Candidates for certification if they passed the student teaching with a grade B or better, passed the appropriate Content Assessment, earned the minimum cut score on the MEES or equivalent state assessment, demonstrated proficiency, completed the Foliotek portfolio representing MoSPE standards, and completed all coursework toward the degree or certification as per the DESE program matrix (LU, Student Teaching Handbook, 2021-2022).

Model Code of Ethics for Educators

The Teacher Preparation Programs at the Private Midwestern University adopted the Model Code of Ethics for Educators (MCEE) for current and future P-12 educators. The MCEE five principles were developed under the leadership of the National

Association of State Directors of Teacher Education and Certification (NASDTEC). The five principles included responsibility to the profession, responsibility for professional competence, responsibility to students, responsibility to the school community, and the responsible and ethical use of technology (LU, Student Teaching Handbook, 2021-2022; MCEE, 2022).

The five MCEE principles define ethical behavior, ethical best practices, and ethical responsibilities held in common by P-12 educators, and each principle is supported by more specific performance indicators. The Teacher Education Programs at the Private Midwestern University embedded the five principles within the course work of the program, and teacher candidates are required to complete quizzes and scenarios associated with each principle in the respective course to which it is assigned. Moreover, teacher candidates are required to recognize the principles in the appropriate educational setting and identify the situation with a solution and/or an alternative way of dealing with the issue (i.e., scenario), while referencing the Code of Ethics in their response (LU, Student Teaching Handbook, 2021-2022; MCEE, 2022).

The quizzes and scenarios related to the MCEE principles must be completed on Canvas, and each quiz is worth 25 points, while each scenario is worth 21 points. The quizzes and scenarios corresponding to principles I, II, III, IV, and V are embedded in various educational courses, which teacher candidates are obliged to take during their study in the program. The total points each teacher candidate should earn for the quizzes and scenario related to principles I, II, and III is 96 points each, while for principle IV, it is 146 points, and principle V is 121 points, with a total of 555 points for all principles (LU, Student Teaching Handbook, 2021-2022; MCEE, 2022).

Disposition of Teacher Candidates

The Missouri initial certificate is a four-year license. Educators obtain this license when they participate in a Teacher Preparation Program, complete two years of mentoring, have a professional development plan and annual evaluation, and 30 semester hours of contact professional development. The Missouri Department of Elementary and Secondary Education (MoDESE) established national standards for the requirements needed from educators to provide quality education to students (MoDESE, MEGA Assessment, 2021).

Based on these standards, MoDESE partnered with Pearson in developing an assessment program called the Missouri Educator Gateway Assessments (MEGA) to evaluate the pedagogical skills and content knowledge required from educators in Missouri. This assessment program covers three main categories: the Missouri General Education Assessment (MoGEA), the Missouri Educator Profile (MEP), and the Missouri Content Assessment Tests (MoCA; MoDESE, MEGA Assessment, 2021).

Many higher educational institutions in Missouri offer undergraduate and graduate Teacher Preparation Programs. These preparation programs have already met the rigorous standards required by the Missouri State Board of Education and have obtained the approval to offer academic programs leading to certification. Four-year institutions offer complete undergraduate programs and may also have graduate programs for advanced certification and/or alternative programs for the non-traditional route for certification (MoDESE, Routes to Certification, 2021; LU, Undergraduate & Graduate Field Experience Handbook, 2021).

Two-year institutions offer only the preliminary stages of teacher preparation, and educators can transfer the credit hours completed in these institutions to a four-year institution to use towards the fulfillment of their certification requirements. This preparation involves planning instruction, knowledge of content area, the pedagogies that will be implemented in the classroom, and the beliefs and value systems that are useful to learning (MoDESE, Routes to Certification, 2021; LU, Undergraduate & Graduate Field Experience Handbook, 2021).

Dispositions are the modes and ways of conduct in which the teacher candidates display their beliefs and values inside and outside the classroom that influence behaviors toward students, families, colleagues, and communities, and affect student learning and development. Those values are related to caring, fairness, honesty, and social justice. The teacher candidates' dispositions are evaluated three times throughout each program; if a minor concern is identified, a Document of Concern will be developed and discussed with the teacher candidate. If a major concern is identified, the Document of Concern will also be developed, and a formal Improvement Plan will be completed by both the teacher candidate and the advisor and reviewed periodically. The Document of Concern will be uploaded to Foliotek for record keeping (LU, Undergraduate & Graduate Field Experience Handbook, 2021).

The disposition items that the teacher candidates are evaluated against are related to the ethical decisions they make. Some of these items include whether they are reliable and inform of any absences or circumstances, if they display professional appearance that is appropriate for the course setting, if they adhere to deadlines and guidelines, if they are self-directed and set high expectations for themselves and others, if they contribute in a

positive way to the classroom climate and are flexible and patient, if they demonstrate enthusiasm and persistence for the career of teaching, if they interact and collaborate appropriately with peers, if they respond to constructive criticism and change their behavior accordingly, if they demonstrate respect for faculty, self, and others, if they communicate professionally, if they display the qualities of a compassionate and caring professional, and if they are open minded and respectful of diversity within the classroom and the broader context (LU, Undergraduate & Graduate Field Experience Handbook, 2021).

The disposition assessment for early and mid-level undergraduate teacher candidates is performed during the field experience, while the disposition assessment for teacher candidates is performed before student teaching in the course related to Advanced Measurement and Evaluation to Enhance Learning. Similarly, the disposition assessment for early and mid-level graduate teacher candidates is performed in the foundation course of K-12 education, while the disposition assessment for teacher candidates is performed before student teaching in the course related to Advanced Measurement and Evaluation to Enhance Learning (LU, Undergraduate & Graduate Field Experience Handbook, 2021).

Finally, unit plan assignments are a key assessment in the methods classes. The unit plan is a broad overview of a set of lessons or a specific topic the teacher candidates may cover during the semester. The component of the unit plan may include the rationale, standards, instructional goals, understanding pre-assessment, summative assessment, formative assessment, materials, and resources. The teacher candidates are required to create the unit plan for methods classes based on the information they receive from the

professor of each class and must upload it to Canvas and Foliotek for review (LU, Undergraduate & Graduate Field Experience Handbook, 2021).

Summary

Performance assessments are a way to ensure graduates of the Teacher Preparation Programs have learned what their programs wanted them to learn. But how well do teacher candidates believe their preparation programs prepared them to manage classrooms, use various instructional methods, teach the subject matter, assess students, and use the data from assessments to make informed decisions? Moreover, Teacher Preparation Programs can improve if they use the data about how well their graduates perform in promoting students' learning. The use of the assessment data might show if a particular assessment or approach is associated with higher scores and incorporate this information into improving the program. This may be known if the various assessments for teacher candidates are examined and analyzed to find its relationship with their performance in real-life classroom practice.

The analysis of assessment scores can show if the outcomes of the Teacher Preparation Programs enhanced and improved the learning process. The use of these scores is also a way to ensure that teacher candidates possess the necessary knowledge, disposition, skills, and competencies needed in the teaching workplace that can lead to better learning outcomes through all levels of education. But what can Teacher Preparation Programs do to ensure effective teacher candidate performance?

The measures for teacher candidates' effectiveness are not clear from year to year because very limited research has been conducted in this area. However, Teacher Preparation Programs whose graduates rank low on these measures year after year may

likely be inadequate in the preparation of skilled and knowledgeable teacher candidates. This inadequate preparation of teacher candidates can have a devastating impact on future generations, teaching quality, and the student learning, which contradicts the primary objective related to the establishment of Teacher Preparation Programs in all academic institutions.

The next chapter will discuss the methodology of the study and will provide an overview of the research design selected that best fits this type of study. The chapter will provide information about data collection, population characteristics, the sample, research question, hypotheses, and the data used to explore and analyze different variables to answer the research question.

Chapter Three: Methodology

Educational administrators around the world constantly make decisions to improve the educational programs at their institutions. However, these decisions are rarely accompanied by well formulated plans to evaluate programs and the impact of these decisions (Murnane & Willett, 2011). Many advances in research methodology and statistical software have improved over the past years, increasing the need to conduct a well-designed study and use various statistical analyses related to educational program evaluation. This type of analysis and evaluation helped maintain continuous improvement to the learning process and the educational programs at the institutions (Murnane & Willett, 2011).

The research process is essential, and understanding it helps researchers realize the type of information they might need for their studies, recognize the research problem and the purpose of their study, and make a comprehensive literature review. With these considerations in mind, researchers can conduct the research and select the right method for their research. The considerations that call for describing and analyzing the relationship among variables made the researcher of this study select a nonexperimental procedure of a quantitative method with a correlational design to help analyze the hypotheses and answer the research question (Clark & Creswell, 2015).

In this chapter, the researcher outlines the methodology used to conduct this study, the research problem, the purpose of the study, the research question and hypotheses, the research design, the population and the sample, the data collection and analysis, and the ethical considerations.

Problem and Purpose Overview

The goal of this research was to study the secondary historical database gathered and compiled by the School of Education at the Private Midwestern University regarding its undergraduate and graduate teacher candidates who studied and/or graduated from its Teacher Preparation Programs during the period from 2016 to 2020. The researcher explored and analyzed variables in the secondary data that affected the teacher candidates' performance during their internship training experience and the state certification assessments to find the relationship between these variables and its effect on their performance.

The exploration of these variables and the analysis of their relationships helped identify variations in the data and measure the effectiveness of the Teacher Preparation Programs. The exploration also helped measure the effectiveness of the evaluation tools used to assess the teacher candidates during their study in the program. Furthermore, the analysis of the secondary data helped find specific patterns of relationship and discovered whether the evaluation tools used for evaluating the teacher candidates' performance were robust enough and a good indicator of their performance in real-life practice.

As such, the researcher examined and analyzed the variables that impacted the teacher candidates' performance using a quantitative approach for the analysis of the secondary data with the objective to determine these variables and their relationship with the teacher candidates' performance. This approach helped predict the mastery of the state certification standards and the overall success and satisfaction with the Teacher Preparation Programs at the Private Midwestern University, potentially highlighting areas

that the School of Education needs to address to improve the learning process in these programs.

Research Design

Since research design is a set of procedures for collecting, analyzing, and reporting data in the research study (Clark & Creswell, 2015), the researcher selected a nonexperimental procedure of a quantitative method with a correlational design to help in analyzing the hypotheses and answering the research question. This selection helped the researcher explore and analyze the secondary historical data collected and compiled by the School of Education about its undergraduate and graduate teacher candidates who studied and/or graduated from its Teacher Preparation Programs during the period from 2016 to 2020.

The goal of using a quantitative method with a nonexperimental procedure and a correlational design is to describe the extent to which various variables related to the outcome variables and measure the degree of relationship between these variables using statistical procedures of correlational analysis (Clark & Creswell, 2015). Accordingly, the researcher studied a group of participants, measured multiple variables, and used different statistical tests to describe the relationships between variables to determine the magnitude and direction of the association without concluding the cause and effect of these variables (Clark & Creswell, 2015).

Additionally, the researcher's intention was to analyze the scores of various variables to find the relationship among variables without any manipulation of the numbers within the data provided by the School of Education. This type of data analysis has never been explored or examined towards the Teacher Preparation Programs of the

School of Education at this Private Midwestern University; hence, the researcher used correlational statistical analysis to provide an objective explanation for the relationships between these variables.

As a result, the study investigated one research question and five hypotheses concerning the variables that affected the performance of teacher candidates during their internship training and state certification assessments, to find the relationship between variables and its effect on teacher candidates' performance. To achieve this goal, the researcher raised the following research question and hypotheses to guide the study:

Research Question and Hypotheses

Research Question 1: What, if any, are the relationships between the various measures of students' performance in the Teacher Preparation Programs?

Null hypothesis 1: There is no relationship between the teacher candidates' GPAs and their performance on their field experience.

Null hypothesis 2: There is no relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs.

Null hypothesis 3: There is no relationship between the teacher candidates' performance on Missouri State Assessments and their performance on their field experience.

Null hypothesis 4: There is no relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments.

Null hypothesis 5: There is no relationship between the teacher candidates' performance on their field experience, as assessed by their cooperating teachers and university supervisors.

Hypothesis one explored and examined the relationships of teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs with their field experience. Hypothesis two explored and examined the relationships between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs. Hypothesis three explored and examined the relationships between the teacher candidates' scores on state assessments and their field experience. Hypothesis four explored and examined the relationships between the teacher candidates' GPAs at various stages of teacher candidates' learning process in the Teacher Preparation Programs and their performance in the state assessments. Hypothesis five examined the Cooperating Teachers' and University Supervisors' evaluation of teacher candidates to find if there was any variation in this evaluation process.

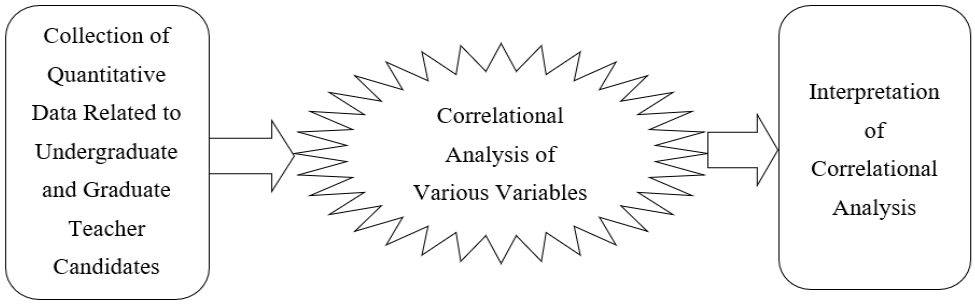
The use of the quantitative methodology with a correlational design helped evaluate the Teacher Preparation Programs through a robust analysis of the relationships between variables related to the undergraduate and graduate teacher candidates' performance in state assessments and various types of university assessments during their study in the programs. This analysis helped discover the effectiveness of the assessment tools used during the teacher candidates' internship training experience and whether they were robust enough to effectively assess teacher candidates and serve as a good indicator of their performance in real-life practice.

Also, the use of the quantitative methodology helped measure the degree of association between variables using statistical procedures of correlational analysis. This degree of association was expressed in numbers and indicated the extent to which the variables were or were not related and to conclude the degree, if any, of the relationship.

Hence, the correlational design helped the researcher study teacher candidates' performance in the Teacher Preparation Programs by predicting the dependent variable and describing the relationship among variables without any manipulation (Clark & Creswell, 2015).

Figure 2

Quantitative Method and the Correlational Design



Instrumentation and Data Collection

The primary instrumentation for collecting the data of this study was an email request that was sent to the School of Education at the Private Midwestern University to provide the researcher with the historical secondary data collected and compiled in their database regarding the teacher candidates who studied and/or graduated from the undergraduate and graduate Teacher Preparation Programs during the period from 2016 to 2020. The data were collected for a series of five years and the instruments used were various types of state and university assessments.

Table 1 illustrates the instrument used to collect the data that were in line with the research hypotheses and used in the correlational analysis to help answer the research question.

Table 1

Research Hypotheses Mapped to Data Collection

Hypothesis	Data	Instrument	Origin/Repository
H1- GPAs scores and overall CT and US scores	Teacher candidates' scores	LMS grades and Teacher Candidate Summative Assessment	Exported from School of Education database to Excel spreadsheet
H2 - GPAs scores at different stages	Teacher candidates' scores	LMS grades	Exported from School of Education database to Excel spreadsheet
H3 - Missouri State assessments scores and overall CT and US scores	Teacher candidates' scores	Teacher candidate summative assessments and state assessments grade report	Exported from School of Education database to Excel spreadsheet
H4 - GPAs scores and Missouri State assessments scores	Teacher candidates' scores	LMS grades and state assessments grade report	Exported from School of Education database to Excel spreadsheet
H5 – CT and US scores	Teacher candidates' scores	Teacher Candidate Summative Assessment	Exported from School of Education database to Excel spreadsheet

Population and Sample

The context of this study is the Teacher Preparation Programs at the School of Education of the Private Midwestern University. The population of the study consists of the undergraduate and graduate teacher candidates who studied and/or graduated from the Teacher Preparation Programs during the period from 2016 to 2020. The researcher did not make any direct communication with the participants in this research and the identities of the teacher candidates were anonymous.

The population of this study were 1004 teacher candidates. The researcher received the data in the form of an Excel file imported from the School of Education database, which consisted of 180 columns and 1004 rows of students' records. Some of these columns contained quantitative data related to teacher candidates' scores in various state assessments, including the MoGEA, MoCA and MoPTA. Other columns were related to the university scores, which the teacher candidates obtained based on their performance on various assessments during their study in the Teacher Preparation Programs.

Since some columns in the dataset contained qualitative data that were not related to this quantitative study or its hypotheses, the researcher organized the secondary historical data in a manageable form that necessitated the elimination of the columns that were not related to the study. The researcher deleted blank rows that contained no data and maintained only the columns and students' records that had complete data and were directly connected to the study to help in analyzing the hypotheses and answering the research question. Additionally, the researcher deleted the columns that contained irrelevant information, including but not limited to assessment dates, number of attempts teacher candidates performed assessments, ACT scores, MoCA 2, 3, 4, 5, and 6, as they were performed by only a few students, MoPTA pass and not pass columns, and dispositions 1, 2, and 3 and all its related columns.

The organization of the data resulted in a new excel master sheet named "organized data" that contained 95 Columns and 1004 rows of students' records. This organization helped the researcher draw out samples that fit and are in line with the research hypotheses for the use of correlational analysis, resulting in a sample size that

varied for each hypothesis, as shown in Table 2, to achieve the goal of this study and answer the research question.

Table 2

Hypotheses and Sample Size

Hypo. #	***n***	**Hypo. #**	***n***	**Hypo. #**	***n***	**Hypo. #**	***n***	**Hypo. #**	***n***
H1.1.	867	H2.1.	994	H3.1.	167	H4.1.	171	H5.1.	871
H1.2.	867	H2.2.	862	H3.2.	282	H4.2.	172		
H1.3.	861	H2.3.	866	H3.3.	515	H4.3.	164		
H1.4.	867	H2.4.	621	H3.4.	323	H4.4.	319		
H1.5.	867	H2.5.	523	H3.5.	477	H4.5.	319		
H1.6.	861	H2.6.	568			H4.6.	281		
H1.7.	867	H2.7.	1000			H4.7.	591		
H1.8.	867	H2.8.	862			H4.8.	598		
H1.9.	861	H2.9.	866			H4.9.	511		
						H4.10.	350		
						H4.11.	352		
						H4.12.	320		
						H4.13.	481		
						H4.14.	483		
						H4.15.	477		

Data Analysis:

The data for this study were related to the undergraduate and graduate teacher candidates' scores that were collected and compiled by the School of Education from state and university assessments performed by teacher candidates during the period from 2016 to 2020. The researcher used a quantitative approach for the collection of these data and the analysis of variables without any manipulation to the teacher candidates' scores of these variables.

The researcher also used the correlational design to find the relationship and the degree of association between variables, which generated a correlation coefficient that indicates the degree of relation between variables and not the causation. The statistical significance test for Pearson's correlation requires the assumption of independent observations and that the two variables be normally distributed in the population (Bluman, 2015; Salkind, 2014). However, this normality assumption is only needed if the sample size is $n \leq 20$ (Field, 2015; Salkind, 2014; Tsagris & Pandis, 2021). Since all the samples used in this research are more than 20, the researcher performed the correlational analysis without preceding it with a normality test.

Ethical Considerations

The researcher used the secondary historical data collected and compiled by the School of Education at the Private Midwestern University for the period of 2016 to 2020. Based on this, there were no ethical issues involved in the research that posed significant risks to the participants. Accordingly, the researcher did not need to have any direct communication with the participants and the identities of the teacher candidates were anonymous. The data used in this study did not require the researcher to obtain any consent from the participants nor imposed any coercion, due to the lack of need for any direct communication.

Furthermore, the researcher assumed that the data obtained from the School of Education regarding the scores of teacher candidates are accurate and a true reflection of their performance in the state and university assessments. Hence, the analysis of the variables and the statistical tests used on these data will reflect the relationship contingent to the accuracy of the scores in the dataset.

Summary

Generally, research methodologies are classified into quantitative, qualitative, and mixed methods; however, other elements can assist in defining the methodology that should be used in the research, including the scope, nature, and type of the research. Selecting the right methodology is essential for the success of the research and this methodology includes the overall process of the research, data collection, data analysis, and interpretation.

That being said, it is important that the researcher uses the appropriate method for data collection, the proper design for the data analysis, and performs the right statistical analysis that can result in the accurate acceptance or rejection of the research hypotheses. As a result, the researcher used a nonexperimental quantitative approach with a correlational design and performed statistical analyses to describe the extent to which specific variables are related to each other, without any manipulation to the scores of these variables. Based on this, the researcher was able to measure and determine the relationship and degree of association between the variables.

In Chapter Four, the researcher discusses in detail the analyses of the data and the quantitative results gathered from the correlational analysis of the research hypotheses and sub-hypotheses. The quantitative approach examined the relationship between variables to find their effect on teacher candidates' performance.

Chapter Four: Analysis of Data

The research process consists of various steps that begin with observation, from which the researcher generates the research question and hypotheses, then the collection of data, which comes into the research process to test the research hypotheses. Accordingly, researchers must identify the variables that need to be tested to be able to collect and analyze the relevant data, answer the research question, and accept or reject the research hypotheses. With quantitative data, researchers must determine the statistical model that fits their data; therefore, the analysis of the data is subjective and is considered the final stage of the research process (Field, 2015).

When the data are collected, summarized, and tested, the researcher must share this information in a clear and unambiguous manner. As a researcher, it is crucial to present and report the data related to the research to optimize its understanding (Field, 2015). That being said, the researcher in this study followed the publication guidelines of the American Psychological Association, 7th edition (APA 7th edition) in reporting and presenting the data of this research. The guiding principle of the APA 7th edition requires the use of fewer decimals for a more precise measure of the data.

Review of Study Purpose and Problem

The effectiveness of the learning process in schools depends not only on school leaders, but also on school teachers who deliver the subject material to students in the classroom and play a vital role in improving student outcomes (Young et al., 2005). School teachers can gain their teaching competencies through real classroom practice and continuous learning; and Teacher Preparation Programs are important contributors to the quality of instruction and the learning process (Feuer et al., 2013).

Teacher Preparation Programs provide school teachers with a quality learning experience. These programs not only encourage school teachers to improve lessons and teaching strategies, but also develop and improve their skills and competencies so that they perform well in real-life practice. Hence, evaluating Teacher Preparation Programs is a vital process in ensuring they perform their duties effectively and fulfill their responsibilities towards their social communities by graduating qualified and competent educators. That being said, the researcher decided to study the historical data collected by the School of Education at a Private Midwestern University related to its undergraduate and graduate teacher candidates who studied and graduated from Teacher Preparation Programs during the period from 2016 to 2020.

The purpose of the study is to examine the collected historical data, explore and analyze the variables related to demographics, performance on state certification assessments, and academic measures, to find specific patterns within or relationships between the variables that might affect teacher candidates' performance in state certification assessments and their internship training experience. The analysis of variables and the exploration of the relationships between variables will help predict the mastery of the state certification standards and the overall success and satisfaction with the programs, potentially highlighting areas that the School of Education needs to address to improve these programs.

Overview of Data Collection

The researcher selected a nonexperimental procedure with a quantitative approach for collecting the secondary data related to the undergraduate and graduate teacher candidates who studied and graduated from the Teacher Preparation Programs at the

Private Midwestern University during the period from 2016 to 2020. The objective of this selection was to determine the variables that impacted the performance of teacher candidates in state certification assessments and their internship training experience.

The researcher also used a correlational design for the analyses of the research hypotheses to determine the relationships between the variables related to the teacher candidates' performance in the state assessments and various types of university assessments during their study in the programs. This type of analysis helped in accepting or rejecting the research hypotheses and answering the research question.

The historical secondary data for this study included 1004 teacher candidates and the researcher received the data in the form of an Excel file imported from the database of the School of Education. The researcher organized the data in a manageable form and eliminated the columns and rows that had no data or contained data that were not related to the study or its hypotheses. This resulted in 95 columns and 1004 rows of students' records from which the researcher withdrew a sample size that varied for each hypothesis, as shown in Chapter Three, Table 2.

Guide for Writing this Chapter

Various materials guided the researcher for writing this chapter, including Paul Katnik's (2014) dissertation related to Missouri's educator evaluation system and its efforts to increase teachers' effectiveness, Lorrie Shepard's (2012) paper presented at the annual meeting of the National Council on Measurement in Education in April 2012 about evaluating the use of tests to measure teacher effectiveness, and the Brabeck et al. (2014) task force report about evaluating the Teacher Preparation Programs.

Katnik (2014) considered the evaluation of Teacher Preparation Programs as vital in ensuring effective teachers; therefore, teacher candidates should enroll in these programs to sharpen and develop their teaching skills, succeed in various state assessments, and meet MoDESE teachers' recruitment standards. When Katnik (2014) explored the relationship between the MEES evaluation system and teacher performance, he found a positive change in teacher performance accompanied by a positive change in student learning outcomes. As a result, Katnik (2014) believed that the MEES evaluation system developed by MoDESE increased the effectiveness of teacher performance in real classroom practice.

Shepard's (2012) paper discussed the use of student test scores and the summative/formative evaluation as the basis for evaluating teachers. Shepard (2012) believed that the use of students' growth to measure teachers' effectiveness improved the quality of education; hence, competent teachers have the power to make a difference in students' achievement and the learning process, in addition to making a real difference in the quality of education delivered to students in the classroom.

Brabeck et al. (2014) showed that various variables can be used in program evaluation, including observations during teaching experience, surveys of teacher candidates, and various assessments related to teacher candidates' skills, knowledge, and understanding of the content knowledge of the subject they teach. Barbeck et al. (2014) also stated that assessing the effectiveness of Teacher Preparation Programs requires using various assessment tools, such as observations, standardized tests, and test scores.

That being said, the researcher explored and analyzed various variables in the historical data related to the undergraduate and graduate teacher candidates who studied

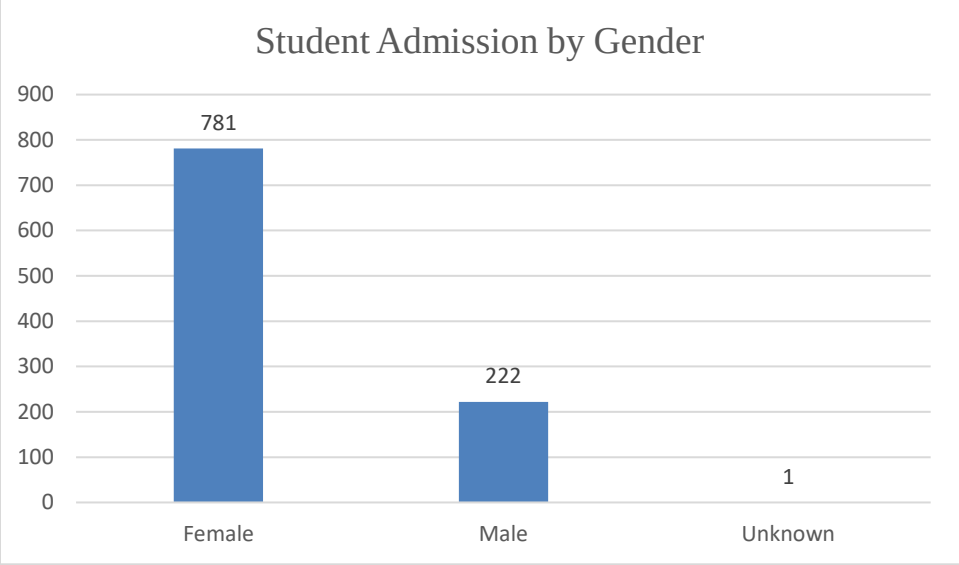
and graduated from the Teacher Preparation Programs at the Private Midwestern University. The researcher statistically analyzed the variables using SPSS to find the relationship between them and the MEES evaluation tool to make informed conclusions about how well the Teacher Preparation Programs are doing at the Private Midwestern University.

Presentation of Data

The researcher used the Excel software to produce several charts that communicate visually the categorical variables related to the teacher candidates admitted in the undergraduate and graduate Teacher Preparation Programs at the Private Midwestern University during the period from 2016 to 2020. The researcher used column charts to compare different categories with one another. Categories are organized horizontally on the x-axis, and values are shown vertically on the y-axis.

Figure 3

Teacher Candidates' Admission by Gender for 2016-2020



The admission of teacher candidates in the undergraduate and graduate Teacher Preparation Programs during the period from 2016 to 2020 was 1004. Figure 3 shows the admission frequencies by gender. The female candidates of 781 formed most of the admission, while the male admission was one third of the female candidates, with a total of 222. However, the gender of one teacher candidate was unknown.

Figure 4 presents the ethnicity frequencies of teacher candidates. The figure demonstrates that white candidates were predominate among the admission of teacher candidates with a total of 854, followed by Black or African American with an admission of 75 candidates, while other ethnicities were very low in frequency.

Figure 4

Teacher Candidates' Admission by Ethnicity for 2016-2020

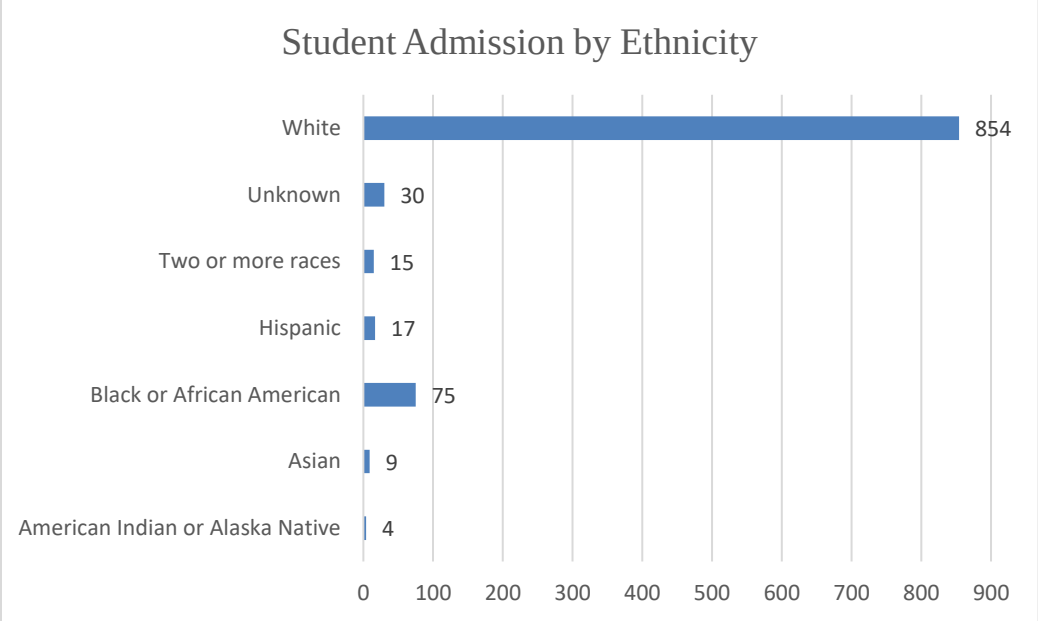
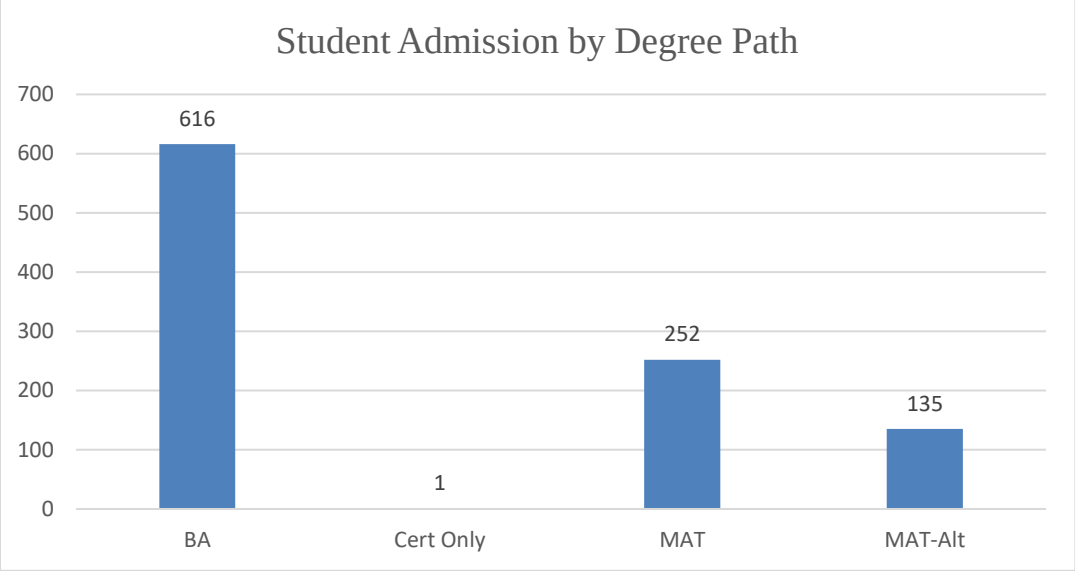


Figure 5 displays the frequencies of the degree path of teacher candidates. The Figure shows that most of the teacher candidates admitted in the undergraduate program sought the Bachelor of Arts (BA) degree. The BA admission formed the majority with

616 teacher candidates; however, the admission in the graduate program was half of the undergraduate admission with 252 teacher candidates admitted in the Master of Arts in Teaching (MAT) and 135 candidates admitted in the Master of Arts in Teaching using the alternative path (MAT-Alt). Only one teacher candidate aimed at obtaining only a teaching certificate.

Figure 5

Teacher Candidates' Admission by Degree Path for 2016-2020



To determine the frequencies of teacher candidates in various specializations and content areas, the researcher grouped the teacher candidates into four groups including K-12, 5-9, 9-12, and others. Figure 6 displays the K-12 student admission by specialization in various content areas. Physical education formed most of the admission with 99 candidates, while the lowest was in dance, with two candidates only.

Figure 6

Admission for K-12 Specializations and Content Areas

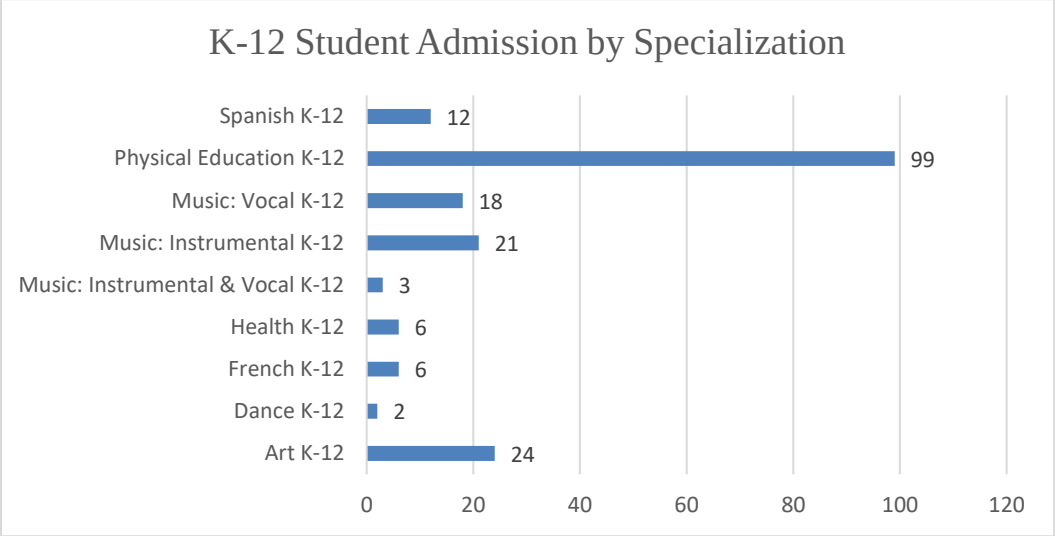


Figure 7 displays student admission by specialization in different content areas related to grades 5-9. The highest admission was in mathematics with 38 teacher candidates, followed by 28 in language arts and 25 in social science. The lowest admission was in business education with only seven candidates.

Figure 7

Admission for Grades 5-9 Specializations and Content Areas

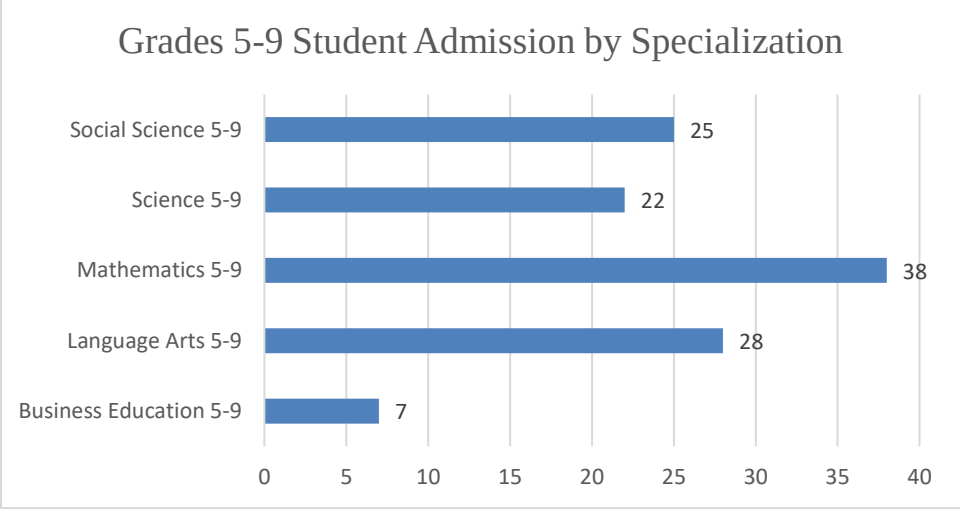
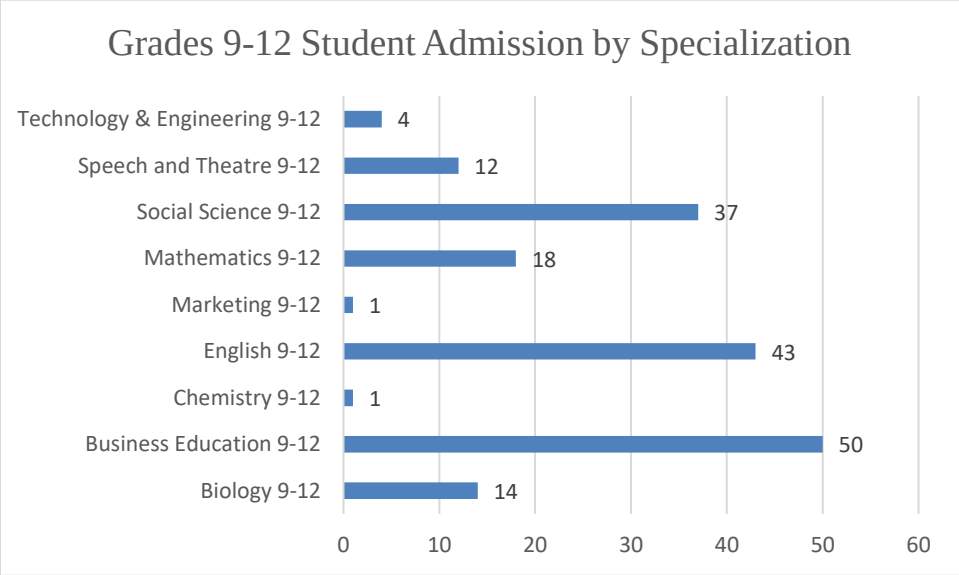


Figure 8 demonstrates the student admission by specialization in different content areas related to grades 9-12. Business education, English, and social science had the highest admissions. However, business education had the biggest share of 50 candidates, followed by 43 candidates admitted in the English language and 37 admitted in social science. Chemistry and marketing formed the lowest admissions with only one candidate admitted in each specialization.

Figure 8

Admission for Grades 9-12 Specializations and Content Areas

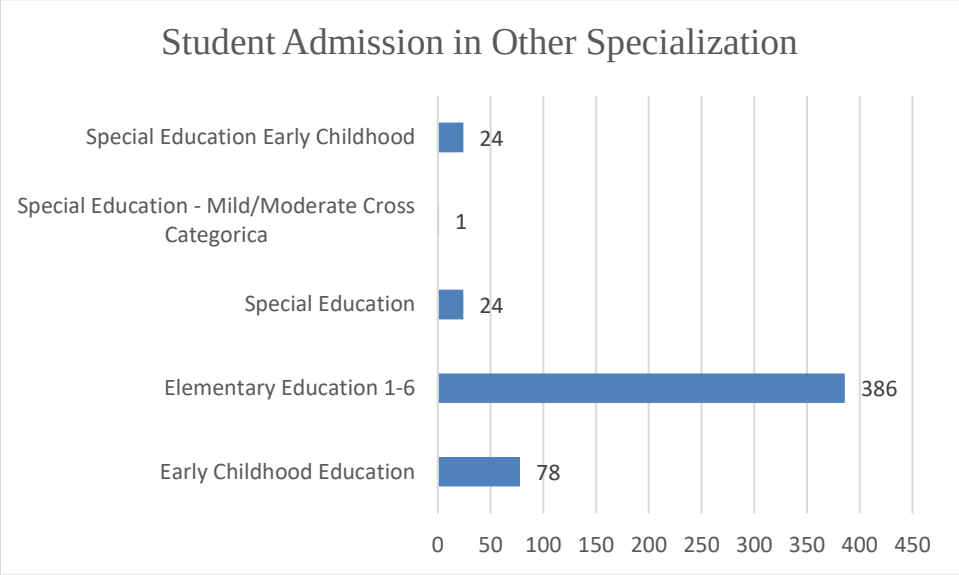


Admission in other specializations related to other content areas includes elementary education for grades 1-6, early childhood education, special education, special education-mild to moderate, and special education for early childhood. Figure 9 presents these areas of specialization and identifies that the admission in elementary education for grades 1-6 formed the highest among all other specializations, with 386 teacher candidates. The lowest admission was for special education-mild to moderate,

with only one candidate. Admission in special education and special education for early childhood had an equal share of 24 candidates each.

Figure 9

Admission for Other Specializations and Content Areas



Analysis of the Exit Data Survey

The Exit Data Survey is a survey taken by student teacher candidates at the end of their degree, when they are about to graduate from the undergraduate or graduate Teacher Preparation Programs. The student teacher candidates used this survey to rate the Teacher Preparation Programs they were enrolled in at the Private Midwestern University. The researcher compiled the quantitative data obtained from the survey during the period from 2016 to 2020 to gain insight about what the teacher candidates think of the program in different areas. The survey consists of 42 fields rated as per the below scale:

- Zero (0): Not at all prepared
- One (1): Inadequately prepared
- Two (2): Adequately prepared

- Three (3): Well prepared
- Four (4): Very well prepared.

The researcher obtained the quantitative data related to this survey from the School of Education, omitted the blank records, and calculated the average value for each field using Excel. The sample consisted of 679 teacher candidates (*n*=679), and the researcher compiled the averages in Table 3 shown below to highlight the general tone of what the teacher candidates think about the preparation programs.

Table 3

Compilation of Averages for the Exit Data Survey Fields used during 2016-2020

Field Name	Average
Knowledge required to teach content area	3.41
Engage students in content area	3.47
Make content area meaningful to students	3.45
Incorporate interdisciplinary instruction	3.30
Design lessons that address differentiated instruction	3.39
Modify instruction for English language learners	2.75
Implement instructions based on student's IEP	3.00
Create lesson plans to engage learners	3.54
Develop lessons on based state standards	3.61
Develop lessons based on district curriculum	3.38
Deliver lessons aligned with curriculum standards	3.54
Deliver lessons for diverse learners	3.41
Employ variety of instructional strategies	3.57
Engage students in critical thinking and problem solving	3.44
Incorporate cooperating learning activities	3.54
Use technology to enhance instruction	3.49
Create classroom environment that encourages student engagement	3.58
Use variety of classroom management practices	3.38
Handle variety of discipline issues	3.06
Motivate students to learn	3.45
Keep students on task	3.36
Foster positive student relationships	3.59

Field Name	Average
Manage time in the classroom	3.32
Manage space in the classroom	3.26
Facilitate transition in the classroom	3.27
Use communication skills to foster learning	3.51
Effectively communicate with parents	3.22
Effectively communicate with staff	3.42
Promote respect for diversity	3.60
Use technology as communication tool	3.60
Enhance student communication skills through technology	3.54
Use assessments to evaluate student learning	3.61
Develop assessments to evaluate student learning	3.56
Analyze assessment data to improve instruction	3.49
Help students set learning goals	3.44
Work with colleagues to set learning goals	3.35
Analyze data to evaluate the outcomes	3.32
Analyze data to reflect on professional growth	3.43
Reflect on constructive criticism from mentor	3.57
Partner with colleagues to support student learning	3.51
Partner with parents to support student learning	3.20
Interact with professional organizations	3.27

Table 3 shows that only one out of 42 fields in the exit data survey has an average rating below 3, with a value of 2.75, which lies on the higher-end between “adequately prepared” to “well prepared” of the rating scale. The remaining 41 fields have an average value above 3, with 15 out of the 41 fields having an average value above 3.5, meaning that student teacher candidates generally believe that their Teacher Preparation Programs have prepared them well on 26 field items, and very well on 15 field items. This exit data survey will be used in Chapter Five to provide insight and recommendations on student satisfaction within their Teacher Preparation Programs at the Private Midwestern University.

Quantitative Analysis of Research Hypotheses

In this study, the researcher investigated and analyzed five main hypotheses and 38 sub-hypotheses. The researcher received the historical, secondary data from the School of Education related to the undergraduate and graduate teacher candidates' scores obtained in various state assessments and other assessments performed during their study in the Teacher Preparation Programs. Quantitative descriptive analyses, scatter plots, and one-tailed correlation analyses were conducted to determine if there was a relationship between various measures of students' performance in the Teacher Preparation Programs.

The statistical significance test for Pearson's correlation requires the assumption of independent observations and that the two variables be normally distributed in the population (Bluman, 2015; Salkind, 2014). However, this normality assumption is only needed if the sample size is $n \leq 20$ (Field, 2015; Salkind, 2014; Tsagris & Pandis, 2021). Since all the samples used in this research are more than 20, the researcher performed the correlational analysis without preceding it with a normality test. Since the sample size for the hypotheses and sub-hypotheses of this correlational study is large, the Pearson value is of limited value in showing whether an association among variables exists. Therefore, the researcher used the *P-value* (significance value) as the determining factor for rejecting or failing to reject the hypotheses.

Null Hypothesis One

Null hypothesis 1: There is no relationship between the teacher candidates' GPAs and their performance on their field experience.

This main null hypothesis investigated the relationship between the teacher candidates' GPAs and their performance on the field experience. To investigate the issue,

the researcher created nine sub null hypotheses, from $H_0$1.1 to $H_0$1.9, and used the scores of cumulative GPAs in stages one and two, and the exit GPA to find its association with the scores of Cooperating Teachers and University Supervisors, in addition to the overall field experience scores, as shown in the below sub null hypotheses.

Sub-hypotheses

Null hypothesis 1.1: There is no relationship between the students' cumulative GPAs in stage one and their overall performance on their field experience.

The researcher used the SPSS software and performed the descriptive analyses, scatter plots, and the one-tailed Pearson Correlation tests for all the sub null hypotheses. The descriptive analysis and scatter plot for $H_0$1.1 are shown respectively in Table 4 and Figure 10. The correlation results for n=867 at 95% confidence interval is r=-.019, p=.284. This result showed that there was not enough evidence to conclude that there was a relationship between the students' cumulative GPAs in stage one and their overall field performance. Hence, the researcher failed to reject the sub null hypothesis. The scatter plot also confirmed that there is no association between these two variables.

Table 4

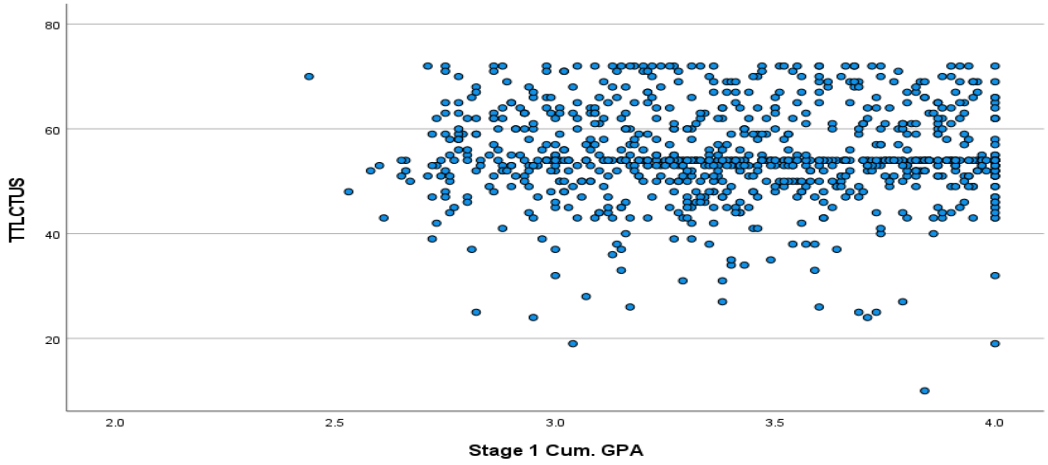
Descriptive Statistics for Stage One Cumulative GPAs and Field Experience

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 1 Cum. GPA	867	3.42	.376
TTLCTUS	867	54.95	8.952
Valid N (listwise)	867		

Figure 10

Scatter Plot for Stage One Cumulative GPAs and Field Experience



Null hypothesis 1.2: There is no relationship between the students' cumulative GPAs in stage two and their overall performance on their field experience.

Similarly, the descriptive analysis and scatter plot for $H_0$1.2 are shown respectively in Table 5 and Figure 11. The correlation results for n=867 at 95% confidence interval *is* r=.061, p=.036. This result showed that there was enough evidence to conclude that there was a relationship between the students' cumulative GPAs in stage two and their overall field performance. Hence, the researcher rejected the sub null hypothesis.

Table 5

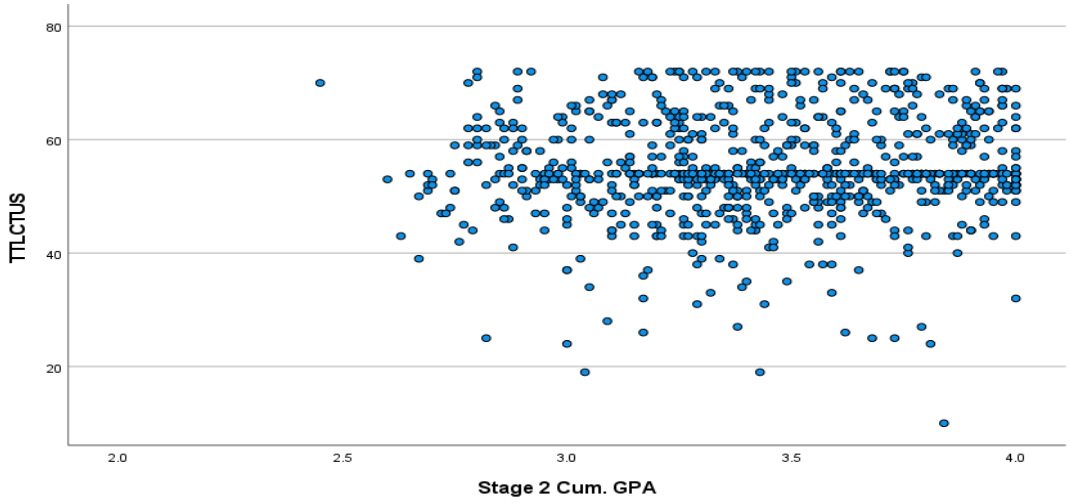
Descriptive Statistics for Stage Two Cumulative GPAs and Field Experience

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 2 Cum. GPA	867	3.44	.345
TTLCTUS	867	54.95	8.952
Valid N (listwise)	867		

Figure 11

Scatter Plot for Stage Two Cumulative GPAs and Field Experience



Null hypothesis 1.3: There is no relationship between the students' cumulative Exit GPAs and their overall performance on their field experience.

The descriptive analysis and scatter plot for $H_0$1.3 are shown respectively on Table 6 and Figure 12. The correlation results for n=861 at 95% confidence interval is r=.104, p=.001. This result showed that there was enough evidence to conclude that there was a relationship between the students' exit cumulative GPAs and their overall field performance. Hence, the researcher rejected the sub null hypothesis.

Table 6

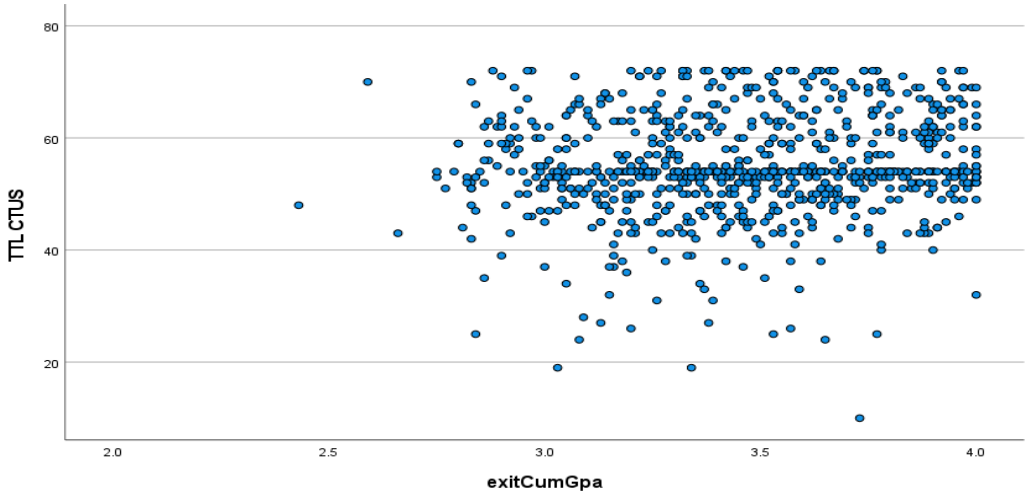
Descriptive Statistics for Exit Cumulative GPAs and Field Experience

Descriptive Statistics

	N	Mean	Std. Deviation
ExitCumGpa	861	3.47	.320
TTL CTUS	861	54.97	8.996
Valid N (listwise)	861		

Figure 12

Scatter Plot for Exit Cumulative GPAs and Field Experience



The sub null hypotheses $H_0$1.4 to $H_0$1.9 are stated below, and the researcher performed the descriptive analyses, scatter plots, and one-tailed Pearson correlation tests for all these hypotheses. The researcher attached the tables and figures related to these sub-hypotheses in Appendix 2 and summarized the correlational results in Table 6.

Null hypothesis 1.4: There is no relationship between the students' cumulative GPAs in stage one and their performance as assessed by cooperating teachers.

Null hypothesis 1.5: There is no relationship between the students' cumulative GPAs in stage two and their performance as assessed by cooperating teachers.

Null hypothesis 1.6: There is no relationship between the students' exit cumulative GPAs and their performance as assessed by cooperating teachers.

Null hypothesis 1.7: There is no relationship between the students' cumulative GPAs in stage one and their performance as assessed by university supervisors.

Null hypothesis 1.8: There is no relationship between the students' cumulative GPAs in stage two and their performance as assessed by university supervisors.

Null hypothesis 1.9: There is no relationship between the students' exit cumulative GPAs and their performance as assessed by university supervisors.

At 95% confidence interval, the correlational results presented in Table 7 showed there was not enough evidence to conclude that there was a significant relationship between the variables in the sub null hypotheses $H_0$1.4, $H_0$1.5, and $H_0$1.7. Hence, the researcher failed to reject these hypotheses. However, the correlational results for $H_0$1.6, $H_0$1.8, and $H_0$1.9 showed that there was enough evidence to conclude that there was a significant relationship between the variables, therefore, the researcher rejected these sub null hypotheses.

Table 7

Correlational Results for $H_0$1.4 to $H_0$1.9

Variables	Ho #	Sample size	Pearson Value	Sig. Value
Stage 1 Cum. GPAs & CT Total	*$H_0$1.4*	867	-.036	.143
Stage 2 Cum. GPAs & CT Total	*$H_0$1.5*	867	.026	.219
Exit. Cum. GPAs & CT Total	*$H_0$1.6*	861	.074	.015
Stage 1 Cum. GPAs & US Total	*$H_0$1.7*	867	.002	.475
Stage 2 Cum. GPAs & US Total	*$H_0$1.8*	867	.088	.005
Exit. Cum. GPAs & US Total	*$H_0$1.9*	861	.119	<.001

Since the correlational results for five sub null hypotheses, $H_0$1.2, $H_0$1.3, $H_0$1.6, $H_0$1.8, and $H_0$1.9, out of nine showed there was a relationship between the variables, the researcher concluded there was enough evidence that showed there was a significant relationship between the teacher candidates' GPAs and their performance on their field experience. Hence, the researcher rejected the main null hypothesis, $H_0$1.

Null Hypothesis Two

Null hypothesis 2: There is no relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs.

This main null hypothesis investigated the relationship between teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs. To investigate the issue the researcher created nine sub-hypotheses, from $H_0$2.1 to $H_0$2.9, and used the scores of cumulative GPAs in stage one and two, exit, content, and education GPAs. These sub null hypotheses are stated below, and the researcher performed the descriptive analyses, scatter plots, and one-tailed Pearson correlation tests to find the associations among variables. The researcher attached the tables and figures related to $H_0$2.1 to $H_0$2.9 in Appendix 2 attached to this study and summarized the correlational results in Table 8.

Sub-hypotheses

Null hypothesis 2.1: There is no relationship between the students' cumulative GPAs in stage one and the students' cumulative GPAs in stage two.

Null hypothesis 2.2: There is no relationship between the students' cumulative GPAs in stage one and the students' cumulative exit GPAs.

Null hypothesis 2.3: There is no relationship between the students' cumulative GPAs in stage two and the students' cumulative exit GPAs.

Null hypothesis 2.4: There is no relationship between the students' content GPAs in stage one and the students' content GPAs in stage two.

Null hypothesis 2.5: There is no relationship between the students' content GPAs in stage one and the students' content exit GPAs.

Null hypothesis 2.6: There is no relationship between the students' content GPAs in stage two and the students' content exit GPAs.

Null hypothesis 2.7: There is no relationship between the students' education GPAs in stage one and the students' education GPAs in stage two.

Null hypothesis 2.8: There is no relationship between the students' education GPAs in stage one and the students' education exit GPAs.

Null hypothesis 2.9: There is no relationship between the students' education GPAs in stage two and the students' education exit GPAs.

At 95% confidence interval, the correlational results presented in Table 8 showed there was not enough evidence to conclude that there was a significant relationship between the variables in the sub null hypotheses $H_0$2.1, and $H_0$2.4. Hence, the researcher failed to reject these hypotheses. However, the correlational results for $H_0$2.2, $H_0$2.3, $H_0$2.5, $H_0$2.6, $H_0$2.7, $H_0$2.8, and $H_0$2.9 showed that there was enough evidence to conclude that there was a significant relationship between the variables; therefore, the researcher rejected these sub null hypotheses.

Table 8

Correlational Results for $H_0$2.1 to $H_0$2.9

Variables	H_0 #	Sample size	Pearson Value	Sig. Value
Stage 1 Cum. GPAs & Stage 2 Cum. GPAs	*$H_0$2.1*	994	.048	.066
Stage 1 Cum. GPAs & Exit Cum. GPAs	*$H_0$2.2*	862	.827	<.001
Stage 2 Cum. GPAs & Exit Cum. GPAs	*$H_0$2.3*	866	.919	.000
Stage 1 Cont. GPAs & Stage 2 Cont. GPAs	*$H_0$2.4*	621	.048	.118
Stage 1 Cont. GPAs & Exit Cont. GPAs	*$H_0$2.5*	523	.837	<.001
Stage 2 Cont. GPAs & Exit Cont. GPAs	*$H_0$2.6*	568	.965	.000
Stage 1 Edu. GPAs & Stage 2 Edu. GPAs	*$H_0$2.7*	1000	.897	.000
Stage 1 Edu. GPAs & Exit Edu. GPAs	*$H_0$2.8*	862	.757	<.001
Stage 2 Edu. GPAs & Exit Edu. GPAs	*$H_0$2.9*	866	.840	<.001

Based on these correlation results, seven sub null hypotheses, $H_0$2.2, $H_0$2.3, $H_0$2.5, $H_0$2.6, $H_0$2.7, $H_0$2.8, and $H_0$2.9, out of nine showed there was a strong relationship between the variables. The researcher concluded there was enough evidence that showed there was a significant relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs. Hence, the researcher rejected the main null hypothesis, $H_0$2.

Null Hypothesis Three

Null hypothesis 3: There is no relationship between the teacher candidates' performance on Missouri State Assessments and their performance on their field experience.

This main null hypothesis investigated the relationship between the teacher candidates' performance on Missouri State Assessments and their performance on the field experience. To investigate the issue, the researcher created five sub-hypotheses, from $H_0$3.1 to $H_0$3.5 and used the scores of old and current versions of the MoGEA, MoCA, and MoPTA assessments. These sub null hypotheses are stated below, and the researcher performed the descriptive analyses, scatter plots, and one-tailed Pearson correlation tests to find the associations among variables. The researcher attached the descriptive analysis tables and the scatter plot figures related to $H_0$3.1 to $H_0$3.5 in Appendix 2.

Sub-hypotheses

Null hypothesis 3.1: There is no relationship between the students' performance on the Missouri General Education Assessment (MoGEA) old version and their performance on their field experience.

At 95% confidence interval, the correlational results presented in Table 9 represent the relationship between students' performance in various subjects of the MoGEA old version assessments and their performance in their field experience. These results showed there was not enough evidence to conclude there was a relationship between students' performance in various subjects of the MoGEA old version assessments and their field experience; hence, the researcher failed to reject $H_0$3.1.

Table 9

Correlational Results for $H_0$3.1

Variables	Sample size	Pearson Value	Sig. Value
MoGEA English & TTL CTUS	167	.044	.288
MoGEA Writing & TTL CTUS	167	.018	.406
MoGEA Math & TTL CTUS	167	.079	.156
MoGEA Science & TTL CTUS	167	.098	.103
MoGEA Social Science & TTL CTUS	167	-.099	.102

Null hypothesis 3.2: There is no relationship between the students' performance on the Missouri General Education Assessment (MoGEA) current version and their performance on their field experience.

At 95% confidence interval, the correlational results presented in Table 10 show the relationship between students' performance in various subjects of the MoGEA current version assessments and their performance in their field experience. These results showed there was not enough evidence to conclude there was a relationship among variables; hence, the researcher failed to reject $H_0$3.2.

Table 10

Correlational Results for $H_0$3.2

Variables	Sample size	Pearson Value	Sig. Value
MoGEA Reading & TTL CTUS	282	-.026	.329
MoGEA Writing & TTL CTUS	282	.108	.035
MoGEA Math & TTL CTUS	282	-.012	.420
MoGEA Science/Social Science & TTL CTUS	282	-.086	.076

Null hypothesis 3.3: There is no relationship between the students' MoCA area of specialization and their performance on their field experience.

The correlational result for $H_0$3.3 at 95% confidence interval and n= 515 *is* r= -.005, p=.457. This result showed there was not enough evidence to conclude that there was a relationship between the students' performance in their MoCA specialization area and their performance in the field experience. Hence, the researcher failed to reject the sub null hypothesis, $H_0$3.3.

Null hypothesis 3.4: There is no relationship between the students' performance on the elementary Missouri Content Assessment (MoCA) and their performance on their field experience.

At 95% confidence interval, the correlational results presented in Table 11 display the relationship between students' performance in various subjects of the elementary MoCA assessments and their performance in the field experience. These results showed there was not enough evidence to conclude there was a significant relationship between students' performance in various subjects of the elementary MoCA assessments and their field experience; hence, the researcher failed to reject $H_0$3.4.

Table 11

Correlational Results for $H_0$3.4

Variables	Sample size	Pearson Value	Sig. Value
MoCA Elementary English & TTL CTUS	323	.037	.252
MoCA Elementary Math & TTL CTUS	323	.109	.025
MoCA Elementary Science & TTL CTUS	323	.070	.105
MoCA Elementary S. Science & TTL CTUS	323	.051	.181

Null hypothesis 3.5: There is no relationship between the students' performance on the Missouri Performance Teaching Assessment (MoPTA) and their performance on their field experience.

The correlational result for $H_0$3.5 at 95% confidence interval and n= 477 is r=.298, p=<.001. This result showed there was sufficient evidence to conclude there was a relationship between the students' performance in MoPTA assessment and their performance in the field experience. Hence, the researcher rejected the sub null hypothesis, $H_0$3.5.

Based on these correlation results, four sub null hypotheses, $H_0$3.1, $H_0$3.2, $H_0$3.3, and $H_0$3.4, out of five showed there was no relationship between the variables, therefore, the researcher concluded there was not enough evidence to conclude there was a significant relationship between the teacher candidates' performance on Missouri State Assessments and their performance on the field experience. Hence, the researcher failed to reject the main null hypothesis, $H_0$3.

Null Hypothesis Four

Null hypothesis 4: There is no relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments.

This main null hypothesis investigated the relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments. To investigate the issue, the researcher created 15 sub-hypotheses, from $H_0$4.1 to $H_0$4.15 and used the GPAs scores in stage one and two, exit GPAs, and the Missouri State assessments scores. These sub null hypotheses are stated below, and the researcher performed the descriptive analyses, scatter plots, and one-tailed Pearson correlation tests to find the associations among variables. The researcher attached the descriptive analysis tables and the scatter plot figures related to $H_0$4.1 to $H_0$4.15 in Appendix 2.

Sub-hypotheses

Null hypothesis 4.1: There is no relationship between the students' GPAs in stage one and their performance on the MoGEA Assessment old version.

The correlational result for $H_0$4.1 at 95% confidence interval and n= 171 is presented in Table 12. This result demonstrates there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage one and their performance on the MoGEA Assessment old version. Hence, the researcher rejected the sub null hypothesis, $H_0$4.1.

Table 12

Correlational Results for $H_0$4.1

Variables	Sample size	Pearson Value	Sig. Value
Stage 1 Cum. GPAs & MoGEA English	171	.342	<.001
Stage 1 Cum. GPAs & MoGEA Writing	171	.326	<.001
Stage 1 Cum. GPAs & MoGEA Math	171	.308	<.001
Stage 1 Cum. GPAs & MoGEA Science	171	.298	<.001
Stage 1 Cum. GPAs & MoGEA S. Science	171	.182	.009

Null hypothesis 4.2: There is no relationship between the students' GPAs in stage two and their performance on the MoGEA Assessment old version.

The correlational result for $H_0$4.2 at 95% confidence interval and *n*= 172 is presented in Table 13. This result shows there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage two and their performance on the MoGEA Assessment old version. Hence, the researcher rejected the sub null hypothesis, $H_0$4.2.

Table 13

Correlational Results for $H_0$4.2

Variables	Sample size	Pearson Value	Sig. Value
Stage 2 Cum. GPAs & MoGEA English	172	.347	<.001
Stage 2 Cum. GPAs & MoGEA Writing	172	.310	<.001
Stage 2 Cum. GPAs & MoGEA Math	172	.321	<.001
Stage 2 Cum. GPAs & MoGEA Science	172	.313	<.001
Stage 2 Cum. GPAs & MoGEA S. Science	172	.174	.011

Null hypothesis 4.3: There is no relationship between the students' exit GPAs and their performance on the MoGEA Assessment old version.

The correlational result for $H_0$4.3 at 95% confidence interval and *n*= 164 is presented in Table 14. This result shows there was sufficient evidence to conclude there was a relationship between the students' exit GPAs and their performance on the MoGEA old version assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.3.

Table 14

Correlational Results for $H_0$4.3

Variables	Sample size	Pearson Value	Sig. Value
Exit Cum. GPAs & MoGEA English	164	.358	<.001
Exit Cum. GPAs & MoGEA Writing	164	.343	<.001
Exit Cum. GPAs & MoGEA Math	164	.336	<.001
Exit Cum. GPAs & MoGEA Science	164	.242	<.001
Exit Cum. GPAs & MoGEA S. Science	164	.235	.001

Null hypothesis 4.4: There is no relationship between the students' GPAs in stage one and their performance on the MoGEA Assessment current version.

The correlational result for $H_0$4.4 at 95% confidence interval and n= 319 is presented in Table 15. This result shows there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage one and their performance on the MoGEA current version assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.4.

Table 15

Correlational Results for $H_0$4.4

Variables	Sample size	Pearson Value	Sig. Value
Stage 1 Cum. GPAs & MoGEA Reading	319	.147	.004
Stage 1 Cum. GPAs & MoGEA Writing	319	.030	.296
Stage 1 Cum. GPAs & MoGEA Math	319	.344	<.001
Stage 1 Cum. GPAs & MoGEA Science/S. Science	319	.188	<.001

Null hypothesis 4.5: There is no relationship between the students' GPAs in stage two and their performance on the MoGEA Assessment current version.

The correlational result for $H_0$4.5 at 95% confidence interval and *n*= 319 is presented in Table 16. This result demonstrates there was sufficient evidence to conclude there was no relationship between the students' GPAs in stage two and their performance on the MoGEA current version assessment. Hence, the researcher failed to reject the sub null hypothesis, $H_0$4.5.

Table 16

Correlational Results for $H_0$4.5

Variables	Sample size	Pearson Value	Sig. Value
Stage 2 Cum. GPAs & MoGEA Reading	319	.092	.050
Stage 2 Cum. GPAs & MoGEA Writing	319	.018	.372
Stage 2 Cum. GPAs & MoGEA Math	319	.003	.477
Stage 2 Cum. GPAs & MoGEA Science/S.Science	319	.081	.074

Null hypothesis 4.6: There is no relationship between the students' exit GPAs and their performance on the MoGEA Assessment current version.

The correlational result for $H_0$4.6 at 95% confidence interval and *n*= 281 is presented in Table 17. This result did not show sufficient or definitive evidence to make a conclusion about the presence or absence of a relationship. Hence, the researcher did not reject or fail to reject the sub null hypothesis, $H_0$4.6.

Table 17

Correlational Results for $H_0$4.6

Variables	Sample size	Pearson Value	Sig. Value
Exit Cum. GPAs & MoGEA Reading	281	.093	.060
Exit Cum. GPAs & MoGEA Writing	281	.021	.365
Exit Cum. GPAs & MoGEA Math	281	.335	<.001
Exit Cum. GPAs & MoGEA Science/S.Science	281	.152	.005

Null hypothesis 4.7: There is no relationship between the students' GPAs in stage one and students' area of specialization.

The correlational result for $H_0$4.7 at 95% confidence interval and *n*= 591 is *r*=.252, *p*=<.001. This result shows there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage one and students' area of specialization. Hence, the researcher rejected the sub null hypothesis, $H_0$4.7.

Null hypothesis 4.8: There is no relationship between the students' GPAs in stage two and students' area of specialization.

The correlational result for $H_0$4.8 at 95% confidence interval and *n*= 598 is *r*=.053, *p*=<.097. This result shows there was sufficient evidence to conclude there was no relationship between the students' GPAs in stage two and students' area of specialization. Hence, the researcher failed to reject the sub null hypothesis, $H_0$4.8.

Null hypothesis 4.9: There is no relationship between the students' exit GPAs and students' area of specialization.

The correlational result for H_0*4.9* at 95% confidence interval and *n*= 511 is *r*=.277, *p*=<.001. This result shows sufficient evidence to conclude there was a relationship between the students' exit GPAs and students' area of specialization. Hence, the researcher rejected the sub null hypothesis, $H_0$4.9.

Null hypothesis 4.10: There is no relationship between the students' GPAs in stage one and their performance on the elementary MoCA Assessment.

The correlational result for $H_0$4.10 at 95% confidence interval and *n*= 350 is presented in Table 18. This result shows sufficient evidence to conclude there was a relationship between the students' GPAs in stage one and their performance on the

elementary MoCA Assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.10.

Table 18

Correlational Results for $H_0$4.10

Variables	Sample size	Pearson Value	Sig. Value
Stage 1 Cum. GPAs & MoCA Elementary English	350	.319	<.001
Stage 1 Cum. GPAs & MoCA Elementary Math	350	.329	<.001
Stage 1 Cum. GPAs & MoCA Elementary Science	350	.274	<.001
Stage 1 Cum. GPAs & MoCA Elementary S. Science	350	.226	<.001

Null hypothesis 4.11: There is no relationship between the students' GPAs in stage two and their performance on the elementary MoCA Assessment.

The correlational result for $H_0$4.11 at 95% confidence interval and n= 352 is presented in Table 19. This result demonstrates there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage two and their performance on the elementary MoCA Assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.11.

Table 19

Correlational Results for $H_0$4.11

Variables	Sample size	Pearson Value	Sig. Value
Stage 2 Cum. GPAs & MoCA Elementary English	352	.366	<.001
Stage 2 Cum. GPAs & MoCA Elementary Math	352	.355	<.001
Stage 2 Cum. GPAs & MoCA Elementary Science	352	.302	<.001
Stage 2 Cum. GPAs & MoCA Elementary S. Science	352	.262	<.001

Null hypothesis 4.12: There is no relationship between the students' exit GPAs and their performance on the elementary MoCA Assessment.

The correlational result for $H_0$4.12 at 95% confidence interval and *n*= 320 is presented in Table 20. This result shows there was sufficient evidence to conclude there was a relationship between the students' exit GPAs and their performance on the elementary MoCA Assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.12.

Table 20

Correlational Results for $H_0$4.12

Variables	Sample size	Pearson Value	Sig. Value
Exit Cum. GPAs & MoCA Elementary English	320	.316	<.001
Exit Cum. GPAs & MoCA Elementary Math	320	.330	<.001
Exit Cum. GPAs & MoCA Elementary Science	320	.293	<.001
Exit Cum. GPAs & MoCA Elementary S. Science	320	.265	<.001

Null hypothesis 4.13: There is no relationship between the students' GPAs in stage one and their performance on the MoPTA Assessment.

The correlational result for $H_0$4.13 at 95% confidence interval and *n*= 481 is *r*=.217, *p*=<.001. This result shows there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage one and their performance on the MoPTA Assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.13.

Null hypothesis 4.14: There is no relationship between the students' GPAs in stage two and their performance on the MoPTA Assessment.

The correlational result for $H_0$4.14 at 95% confidence interval and *n*= 483 is *r*=.215, *p*=<.001. This result shows there was sufficient evidence to conclude there was a relationship between the students' GPAs in stage two and their performance on the MoPTA Assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.14.

Null hypothesis 4.15: There is no relationship between the students' exit GPAs and their performance on the MoPTA Assessment.

The correlational result for $H_0$4.15 at 95% confidence interval and n= 477 is r=.262, p<.001. This result demonstrates there was sufficient evidence to conclude there was a relationship between the students' exit GPAs and their performance on the MoPTA Assessment. Hence, the researcher rejected the sub null hypothesis, $H_0$4.15.

Based on these correlation results, 13 sub null hypotheses, $H_0$4.1, $H_0$4.2, $H_0$4.3, $H_0$4.4, $H_0$4.6, $H_0$4.7, $H_0$4.9, $H_0$4.10, $H_0$4.11, $H_0$4.12, $H_0$4.13, $H_0$4.14 and $H_0$4.15, out of 15 showed there was a relationship between the variables. The researcher concluded there was enough evidence to conclude there was a significant relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments. Hence, the researcher rejected the main null hypothesis, $H_0$4.

Null Hypothesis Five:

Null hypothesis 5: There is no relationship between the teacher candidates' performance on their field experience as assessed by their Cooperating Teachers and University Supervisors.

The correlational result for $H_0$5 at 95% confidence interval and n= 871 is r=.676, p=<.001. This result shows there was sufficient evidence to conclude there was a strong positive relationship between the teacher candidates' performance on their field experience as assessed by their Cooperating Teachers and University Supervisors. Hence, the researcher rejected the null hypothesis, $H_0$7.

Summary

The researcher's objective of this study was to describe the extent to which various variables relate to the outcome variables and measure their degree of relationship using statistical procedures of correlational analysis. Therefore, the researcher selected a nonexperimental procedure of a quantitative method with a correlational design. This selection helped to explore and analyze the secondary, historical data collected and compiled by the School of Education about the teacher candidates who studied and graduated from its undergraduate and graduate Teacher Preparation Programs during the period from 2016 to 2020.

Accordingly, the researcher studied a group of participants and measured multiple variables to determine the magnitude and direction of association without concluding the cause and effect of these variables. The use of the quantitative method with a correlational design and the use of SPSS to perform various statistical analyses helped in achieving the objective of the study. The researcher performed a robust analysis of the relationships among variables related to teacher candidates' performance in the state assessments and various types of university assessments during their study in the Teacher Preparation Programs.

The analyses of the secondary data helped find specific patterns of relationship to discover if the evaluation tools used for assessing the teacher candidates' performance were effective and are good indicators of their performance in real-life practice. Moreover, these analyses helped evaluate the undergraduate and graduate Teacher Preparation Programs to predict the future performance of teacher candidates.

The researcher did not use the Pearson value when rejecting or failing to reject the main null or sub null hypotheses; instead, the researcher used the *p*-value (significance value) as the determining factor for rejecting or failing to reject the hypotheses. This is because the sample size for the hypotheses and sub-hypotheses of this correlational study is large, and the use of the Pearson value will be of limited value in showing whether an association exists or not among variables.

Since the *p*-value was the determining factor, the researcher concluded the presence of a relationship without determining its strength or weakness. The researcher made the decision to reject or fail to reject the main null hypotheses based on the majority results of the sub null hypotheses and whether these were rejected or not. In certain cases, the researcher neither rejected nor failed to reject the sub null hypotheses as the results were not sufficient nor definitive to make a conclusion regarding the existence or absence of a relationship.

Chapter Five will discuss the research findings and provide some suggestions that help improve the Teacher Preparation Programs and enhance teacher candidates' performance in various state assessments. Furthermore, the chapter will discuss some recommendations for future research that can provide a more in-depth analyses on this issue.

Chapter Five

Summary, Implications, Conclusion, and Recommendations

Summary of Findings

This study explored and analyzed various variables that may impact teacher candidates' performance in the state certification assessments and field experience. The purpose was to identify the variations in the data to determine whether this variability affects teacher candidates' performance in the state assessments and field experience and whether the tools used for evaluating teacher candidates are good indicators of their performance in real-life practice.

Chapter Five reviews the findings and connects the quantitative statistical results obtained in Chapter Four to various learning stages and educational courses offered in the undergraduate and graduate Teacher Preparation Programs at the Private Midwestern University. The researcher used the statistical results to make informed recommendations for the School of Education at the Private Midwestern University, to help improve its Teacher Preparation Programs and predict the mastery of state certification standards. The researcher also discussed in this chapter the outcomes, implications, and recommendations for future research.

University administrators and teachers bear the responsibility of continuously improving their Teacher Preparation Programs. This requires that administrators know the direction of these programs, which is predicted from valid and reliable information about how the programs are doing. Many methods are used in evaluating Teacher Preparation Programs, including standardized observation, summative and formative types of assessments, and surveys of teacher candidates' performance. The validity of this

information depends on the quantitative and qualitative data collected that can be used to help improve these programs (Brabeck et al., 2014). In this study, all these elements were brought together, explored, and analyzed to make informed conclusions about how well the Teacher Preparation Programs are doing at the Private Midwestern University.

The board of education in the state of Missouri developed teaching standards and quality indicators to serve as the foundation of the Missouri Educators Evaluation System (MEES). The MEES evaluation tool measures teacher candidates' performance fairly and accurately to increase the effectiveness of their performance in real classroom practice. The use of the MEES evaluation tool resulted in a positive change on the performance of teacher candidates, leading to an improvement in students' learning process (Katnik, 2014).

This study utilized a nonexperimental procedure of a quantitative method with a correlational design. The research question and the null hypotheses of this study were interwoven to reinforce the quantitative analyses. The insights revealed from this research could be useful in enhancing teacher candidates' performance in various state assessments and in supporting administrators' decisions that call for the improvement of the undergraduate and graduate Teacher Preparation Programs at the Private Midwestern University.

The study investigated one research question, five hypotheses, and 38 sub-hypotheses about the variables that affect the teacher candidates' performance in state assessments and their field experience. The use of SPSS software helped the researcher to identify relationships among variables that may affect teacher candidates' performance in various assessments, which might have a positive impact on their performance in real-life

classroom practice. The Research Question and Hypotheses considered in this study were:

Research Question 1: What, if any, are the relationships between the various measures of students' performance in the Teacher Preparation Programs?

Null hypothesis 1: There is no relationship between the teacher candidates' GPAs and their performance on their field experience.

Null hypothesis 2: There is no relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs.

Null hypothesis 3: There is no relationship between the teacher candidates' performance on Missouri State Assessments and their performance on their field experience.

Null hypothesis 4: There is no relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments.

Null hypothesis 5: There is no relationship between the teacher candidates' performance on their field experience as assessed by their cooperating teachers and university supervisors.

The Pearson Product Moment Correlation Coefficient (PPMCC) was used to determine whether relationships existed among various variables. The statistical significance test for the PPMCC requires that two variables be normally distributed in the population (Bluman, 2015; Salkind, 2014), but since the samples in this research are more than 20 ($n>20$) (Field, 2015; Salkind, 2014; Tsagris & Pandis, 2021), the researcher performed the correlational analyses without preceding it with a normality test.

Given that the samples in this study were large, the Pearson value will be of limited value in showing the association among variables; hence, the researcher used the *p-value* (significance value) as the determining factor for rejecting or failing to reject the hypotheses. The summary of the findings related to the statistical analyses of this study's hypotheses are as follows:

Null hypothesis 1: There is no relationship between the teacher candidates' GPAs and their performance on their field experience.

The analysis showed that the correlation coefficient was significant. Thus, the researcher rejected the null hypothesis and concluded that the teacher candidates' GPAs in various stages and their performance in their field experience are related.

Null hypothesis 2: There is no relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs.

The analysis showed that the correlation coefficient was significant. Thus, the researcher rejected the null hypothesis and concluded that the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs are related.

Null hypothesis 3: There is no relationship between the teacher candidates' performance on Missouri State Assessments and their performance on their field experience.

The analysis showed that the correlation coefficient was not significant. Thus, the researcher failed to reject the null hypothesis and concluded that the teacher candidates' performance on the Missouri State Assessments and their field experience are not related.

Null hypothesis 4: There is no relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments.

The analysis showed that the correlation coefficient was significant. Thus, the researcher rejected the null hypothesis and concluded that the teacher candidates' GPAs in various stages and their performance on the Missouri State Assessments are related.

Null hypothesis 5: There is no relationship between the teacher candidates' performance on their field experience as assessed by their Cooperating Teachers and University Supervisors.

The analysis showed that the correlation coefficient was significant. Thus, the researcher rejected the null hypothesis and concluded that the teacher candidates' performance on their field experience as assessed by their Cooperating Teachers and University Supervisors are related.

Discussion and Conclusion of the Findings

Before discussing and interpreting the statistical findings of this study, the researcher must point out that the stage one GPA is the cumulative GPA of the content courses and general educational courses the teacher candidates take in this stage. Similarly, the stage two and Exit GPAs are the cumulative GPAs of the content and educational courses related to each stage. As for the MoPTA, the total score consists of the teacher candidates' scores in task two, three, and four of the assessment; while their performance on task one is unscored.

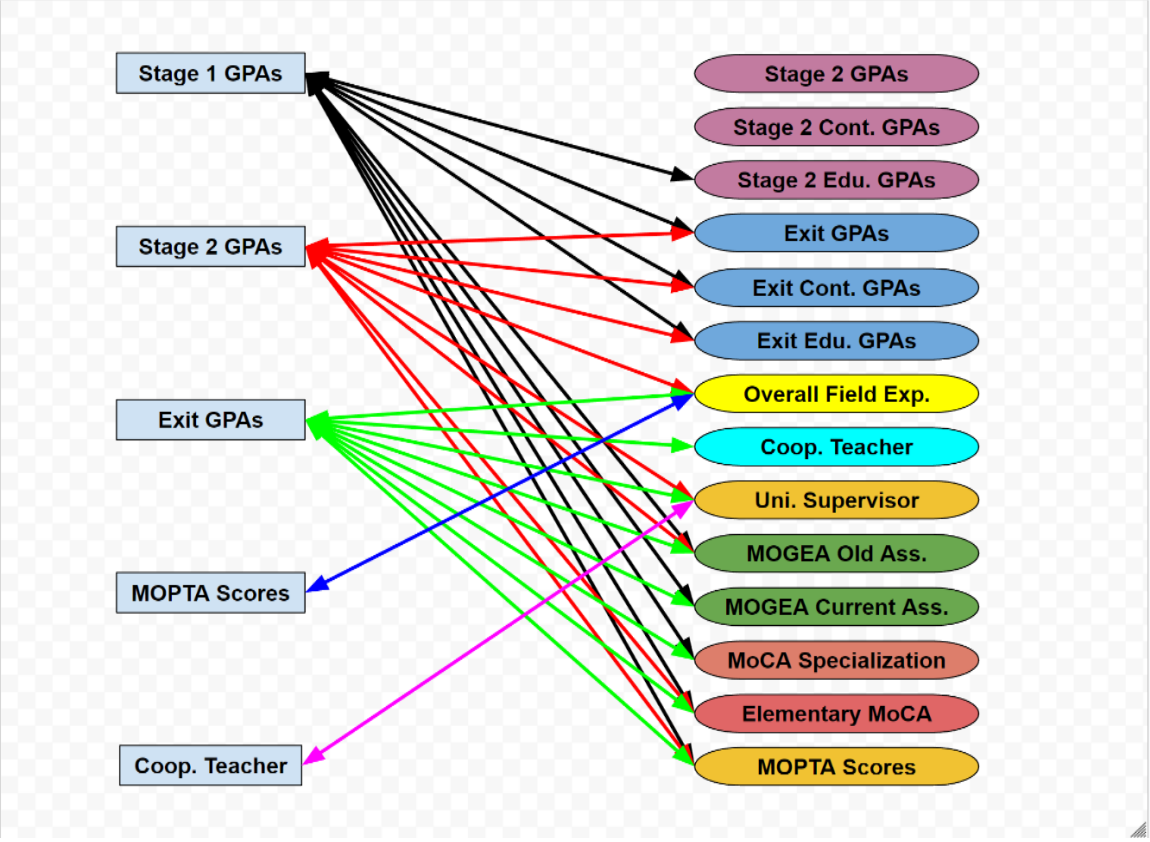
The overall field experience scores are the combined scores that the Cooperating Teacher and University Supervisor give to teacher candidates. The MoGEA old assessment scores reflect the combined scores related to five subjects including English, writing, mathematics, science, and social science, while the MoGEA current assessment scores reflect the combined scores related to four subjects, including reading, writing,

math, science, and social science. Finally, the researcher diagramed and summarized the statistical results of the significant relationships among the variables of this study in Figure 13, while the variables that have no association are diagramed and summarized in Figure 14.

Figure 13 shows a correlation between teacher candidates' GPAs in stage one with their education GPAs in stage two, proving that the educational courses offered in the Teacher Preparation Programs in stage one and two are related and in line with what is needed in the educational field. It also shows that the evaluation tools used by the faculty in the Teacher Preparation Programs are effective tools for evaluating teacher candidates in stage one and in the prediction of their performance in stage two education.

Figure 13

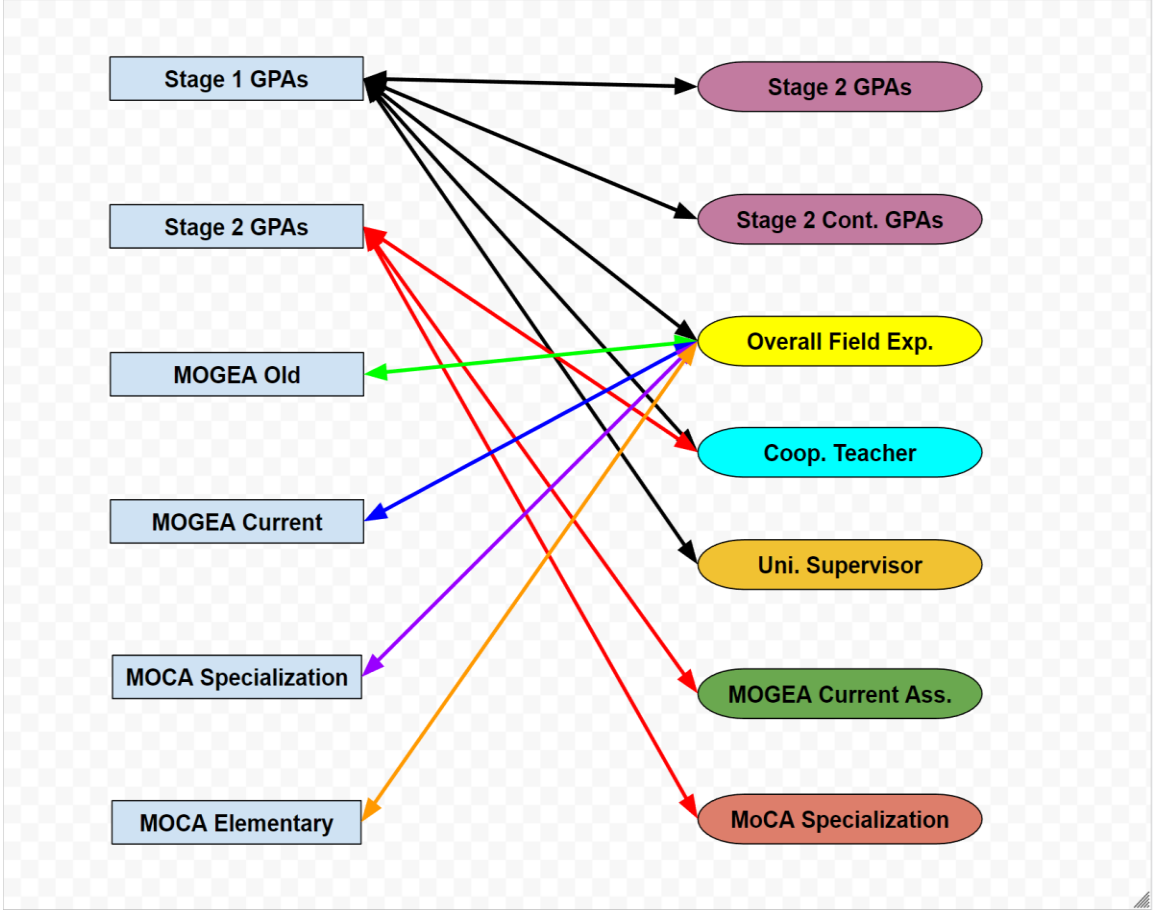
The Study Variables That Have a Significant Correlation



However, the statistical results for stage one showed that there is no correlation between stage one GPAs and the total GPAs in stage two and its content, as shown in Figure 14. This is due to the fact that the content courses offered in stage one are more preliminary and less content-specialized than the courses offered in stage two, which offers advanced-level courses that are content-focused. Moreover, teacher candidates in stage one are at the initial phase of their teaching program and are still exploring the various general topics that can help prepare them for the more advanced courses offered in stage two; thus, the researcher did not expect to find a relationship between the two variables.

Figure 14

The Study Variables That Have No Correlation



On the other hand, Figure 13 shows a significant relationship between stage one GPAs and the Exit GPAs, in addition to MoGEA old and current assessments, MoCA specialization, elementary MoCA, and MoPTA assessments. Considering that the exit GPAs consist of stage one and stage two content and education GPAs, a relationship will naturally exist between either of these two stages as they formulate part of the cumulative exit GPAs.

The significant relationships shown between stage one and various state assessments is further evidence that the general educational and content courses offered in stage one provides sufficient basic knowledge that contributes in preparing teacher candidates for various state assessments. This means that the curriculum offered in stage one consists of general content and educational courses that provide teacher candidates with the necessary preliminary knowledge and skills needed to perform well in the English, reading, writing, math, science, and social science segments of various state assessments.

As noted previously regarding stage one, teacher candidates are in the initial phase of their teaching program; thus, their GPAs during this stage will not indicate a meaningful relationship with other variables as the preliminary courses offered at this stage do not solely provide teacher candidates with sufficient training, knowledge, or skills for real classroom practice. On the other hand, stage two GPAs have a significant relationship with the teacher candidates' overall field experience, MoGEA old assessment, elementary MoCA, and MoPTA assessments. This is because stage two of the Teacher Preparation Programs offers more advanced content and educational courses that refine teacher candidates' knowledge and skills, allowing them to perform well in

state assessments, while also enabling them to utilize these skills in real classroom practice.

Moreover, the Exit GPA is a cumulative of both stage one and stage two GPAs and will subsequently have a more meaningful relationship with teacher candidates' performance in state assessments and their field experience. Figure 13 verifies a significant relationship between the Exit GPAs with teacher candidates' performance in their field experience and various state assessments. This is because the level of cumulative knowledge and experience that teacher candidates obtained up until the Exit GPA stage is more comprehensive than previous stages and is in line with their field experience, as real classroom practice requires more experienced, knowledgeable, and skilled teacher candidates.

This being the case, the researcher concluded that there is strong evidence that the curriculum offered within the Teacher Preparation Programs at the Private Midwestern University provides teacher candidates with sufficient knowledge and skills that are in line with the requirements set by various state assessments, thus enabling them to pass these assessments, obtain the teaching certification, and build their teaching career within the educational field.

As for the MoPTA, the state assessment consists of four tasks that help measure the teacher candidates' knowledge and skills in various areas related to reading, writing, content material, artifacts, knowledge of classroom and students, instructional design to promote student learning, and teacher candidates' communication skills with students, parents, and colleagues. These tasks help refine teacher candidates' knowledge and skills and allows them to perform well in their field experience, which explains the significant

relationship shown in Figure 13 between the MoPTA and teacher candidates' field experience.

The field experience for teacher candidates is evaluated by the Cooperating Teacher and the University Supervisor, and their stated scores are correlated; meaning that they agree on the overall performance level of teacher candidates, based on identical criteria, which reflects a fair evaluation and judgement of teacher candidates' practical performance in the classroom and explains their positive relationship. Furthermore, the MoGEA old and current assessments, MoCA specialization, and elementary MoCA are assessments that generally test theoretical content knowledge, while the field experience is assessed based on practical skills and the implementation of teacher candidates' knowledge in the classroom. This variance explains why there is no relationship between the state assessments and teacher candidates' performance on their field experience.

Implications

This study contributes to the teacher candidates, Teacher Preparation Programs, and the society. Teacher Preparation Programs influence teacher candidates' performance in real-life practice as these programs provide teacher candidates with the knowledge and skills they need for implementation in the classroom. Teacher Preparation Programs provide teacher candidates with this knowledge and skills through the content and educational courses they offer at various stages of their study in the programs. When teacher candidates' knowledge and skills are refined, they can utilize what they learned to perform well in various state assessments, their field experience, and classroom practice, which will positively impact students' learning processes and the society.

Other implications of this study involve stage one in the Teacher Preparation Programs at the Private Midwestern University. The findings obtained in Chapter Four suggest that adding more practical courses in this stage is needed to help enhance teacher candidates' skills and knowledge before implementation in their field training. Similarly, the curriculum offered in stage two of the Teacher Preparation Programs can be improved by providing additional educational and content courses that help students perform well in MoGEA and MoCA assessments.

Recommendations

Throughout this study, the researcher was able to identify variables that lack relationships with other variables and assess the factors affecting teacher candidates' performance to make recommendations that improve the curriculum offered by the Teacher Preparation Programs at the Private Midwestern University. These recommendations aim to enhance the teacher candidates' knowledge and skills in various stages of their degree, so that they perform well in their field experience and pass the required state assessments that allow them to obtain their teaching certification and become skilled educators.

The statistical analyses of various variables and the exploration of the relationships between the variables revealed that the educational and content courses offered at various stages of the study in the Teacher Preparation Programs are of good quality that ensure the success of teacher candidates in various state assessments. Furthermore, the exit survey data showed that teacher candidates are overall satisfied with their programs and believe it prepared them well during their study. Based on this, the researcher recommends that the Private Midwestern University continues to maintain

student satisfaction by ensuring their curriculum and the content knowledge they offer remains consistently up to date with the requirements of state assessments and real classroom practice.

On the other hand, and as previously stated in the implications section of this chapter, the researcher pointed out that the statistical analyses obtained throughout the study affects stage one and stage two of the curriculum offered in the Teacher Preparation Programs at the Private Midwestern University. The study concluded that there was no correlation between stage one GPAs and the overall field experience, which is explained by the fact that the curriculum at this stage offers general preliminary courses that are not content-specific. Furthermore, knowledge obtained during stage one is theoretical and does not provide enough practical skills that teacher candidates can utilize throughout their field experience.

Despite this being the case at many universities, the researcher recommends that more practical training courses be incorporated within the curriculum in stage one so that teacher candidates' knowledge and skills are more fully refined and can naturally perform well in real classroom practice. Furthermore, and due to the lack of relationship between stage two GPAs with the MOCA specialization and MoGEA current assessments, the researcher recommends that more specialized and content-specific course options be offered during stage two so that teacher candidates are able to perform better in state assessments.

Finally, there is no literature surrounding the topic of measuring the effectiveness of teacher preparation programs and the evaluation tools used to assess the performance of teacher candidates. The researcher recommends performing studies that explore

various evaluation tools within the higher educational system, the efficacy of content-based curriculum in preparing students for state assessments, and the effect of incorporating practical-based courses on teacher candidates' performance in their field experience. This will help higher educational institutions improve their programs and allow for a more efficient and diversified approach to learning.

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Appendix 1

The Road Map for the Research Question and Hypotheses

The Research Question:

1) RQ: What, if any, are the relationships between the various measures of students' performance in the Teacher Preparation Programs?

The Research hypotheses and sub-hypotheses:

1) H_o1: There is no relationship between the teacher candidates' GPAs and their performance on their field experience.

Sub-hypotheses:

1. H_o: There is no relationship between the students' cumulative GPAs in stage one and their overall performance on their field experience. (n=867)
2. H_o: There is no relationship between the students' cumulative GPAs in stage two and their overall performance on their field experience. (n=867)
3. H_o: There is no relationship between the students' cumulative Exit GPAs and their overall performance on their field experience. (n=861)
4. H_o: There is no relationship between the students' cumulative GPAs in stage one and their field performance as assessed by their cooperating teachers. (n=867)
5. H_o: There is no relationship between the students' cumulative GPAs in stage two and their field performance as assessed by their cooperating teachers. (n=867)

6. H_o: There is no relationship between the students' cumulative Exit GPAs and their field performance as assessed by their cooperating teachers. (n=861)
7. H_o: There is no relationship between the students' cumulative GPAs in stage one and their field performance as assessed by their university supervisors. (n=867)
8. H_o: There is no relationship between the students' cumulative GPAs in stage two and their field performance as assessed by their university supervisors. (n=867)
9. H_o: There is no relationship between the students' cumulative Exit GPAs and their field performance as assessed by their university supervisors. (n=861)

2) H_o2: There is no relationship between the teacher candidates' GPAs at various stages of their study in the Teacher Preparation Programs.

Sub-hypotheses:

1. H_o: There is no relationship between the students' cumulative GPAs in stage one and the students' cumulative GPAs in stage two. (n=994)
2. H_o: There is no relationship between the students' cumulative GPAs in stage one and the students' cumulative Exit GPAs. (n=862)
3. H_o: There is no relationship between the students' cumulative GPAs in stage two and the students' cumulative Exit GPAs. (n=866)
4. H_o: There is no relationship between the students' content GPAs in stage one and the students' content GPAs in stage two. (n=621)

5. H_o: There is no relationship between the students' content GPAs in stage one and the students' content Exit GPAs. (n=523)
6. H_o: There is no relationship between the students' content GPAs in stage two and the students' content Exit GPAs. (n=568)
7. H_o: There is no relationship between the students' education GPAs in stage one and the students' education GPAs in stage two. (n=1000)
8. H_o: There is no relationship between the students' education GPAs in stage one and the students' education Exit GPAs. (n=862)
9. H_o: There is no relationship between the students' education GPAs in stage two and the students' education Exit GPAs. (n=866)

3) H_o3: There is no relationship between the teacher candidates' performance on Missouri State Assessments and their performance on their field experience.

Sub-hypotheses:

1. H_o: There is no relationship between the students' performance on the Missouri General Education Assessment (MoGEA) old version and their performance on their field experience. (n=167)
2. H_o: There is no relationship between the students' performance on the Missouri General Education Assessment (MoGEA) current version and their performance on their field experience. (n=282)
3. H_o: There is no relationship between the students' MoCA area of specialization and their performance on their field experience. (n=515)

4. H_o: There is no relationship between the students' performance on the elementary Missouri Content Assessment (MoCA) and their performance on their field experience. (n=323)
5. H_o: There is no relationship between the students' performance on the Missouri Performance Teaching Assessment (MoPTA) and their performance on their field experience. (n=477)

4) H_o4: There is no relationship between the teacher candidates' GPAs and their performance on the Missouri State Assessments.

Sub-hypotheses:

1. H_o: There is no relationship between the students' GPAs in stage one and their performance on the MoGEA Assessment old version. (n=171)
2. H_o: There is no relationship between the students' GPAs in stage two and their performance on the MoGEA Assessment old version. (n=172)
3. H_o: There is no relationship between the students' Exit GPAs and their performance on the MoGEA Assessment old version. (n=164)
4. H_o: There is no relationship between the students' GPAs in stage one and their performance on the MoGEA Assessment current version. (n=319)
5. H_o: There is no relationship between the students' GPAs in stage two and their performance on the MoGEA Assessment current version. (n=319)
6. H_o: There is no relationship between the students' Exit GPAs and their performance on the MoGEA Assessment current version. (n=281)
7. H_o: There is no relationship between the students' GPAs in stage one and students' area of specialization. (n=591)

8. H_o: There is no relationship between the students' GPAs in stage two and students' area of specialization. (n=598)
9. H_o: There is no relationship between the students' Exit GPAs and students' area of specialization. (n=511)
10. H_o: There is no relationship between the students' GPA in stage one and their performance on the elementary MoCA Assessment. (n=350)
11. H_o: There is no relationship between the students' GPA in stage two and their performance on the elementary MoCA Assessment. (n=352)
12. H_o: There is no relationship between the students' Exit GPA and their performance on the elementary MoCA Assessment. (n=320)
13. H_o: There is no relationship between the students' GPA in stage one and their performance on the MoPTA Assessment. (n=481)
14. H_o: There is no relationship between the students' GPA in stage two and their performance on the MoPTA Assessment. (n=483)
15. H_o: There is no relationship between the students' Exit GPA and their performance on the MoPTA Assessment. (n=477)

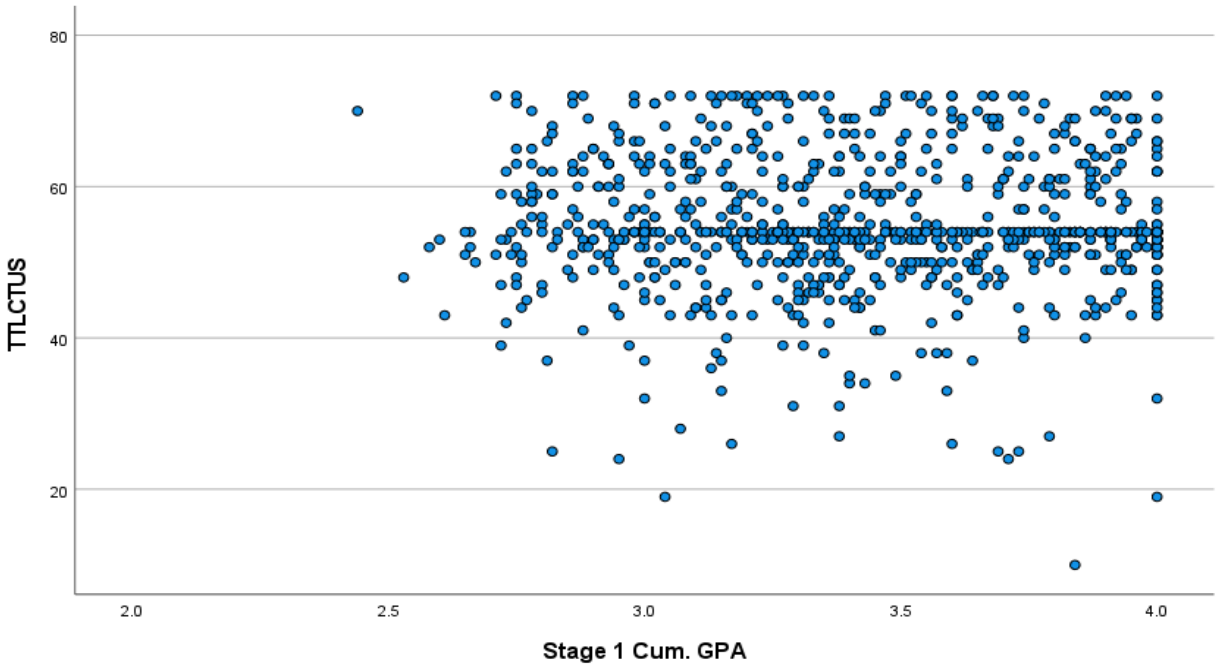
5) H_o5: There is no relationship between the teacher candidates' performance on their field experience as assessed by their cooperating teachers and as assessed by their university supervisors. (n=874)

Appendix 2

$H_0$1.1.

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 1 Cum. GPA	867	3.42	.376
TTLCTUS	867	54.95	8.952
Valid N (listwise)	867		



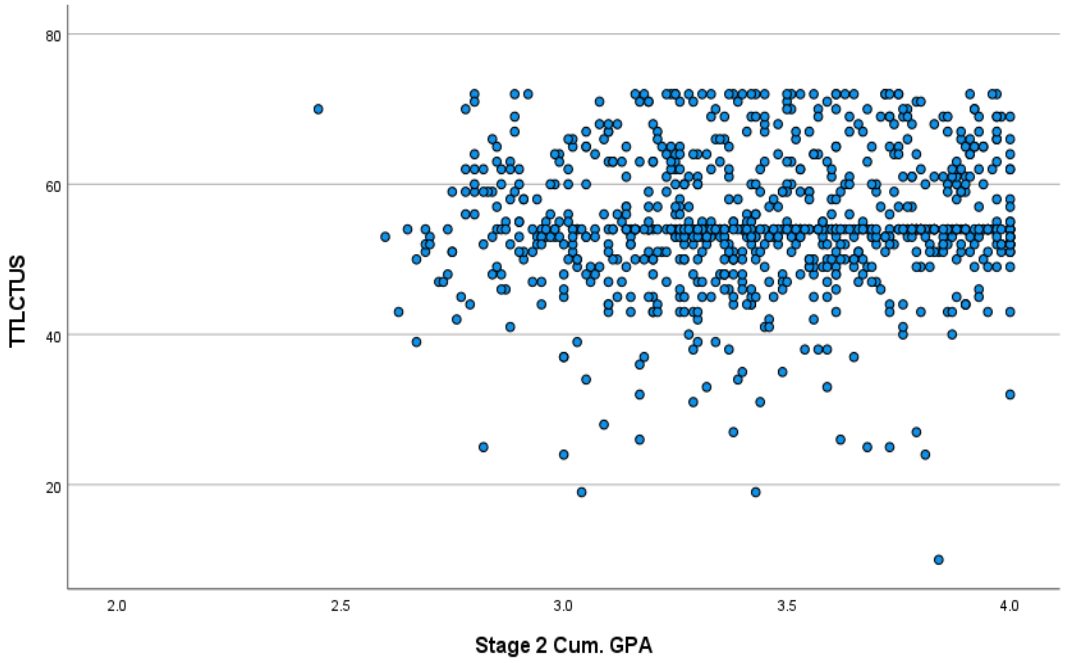
Correlations

		Stage 1 Cum. GPA	TTLCTUS
Stage 1 Cum. GPA	Pearson Correlation	1	-.019
	Sig. (1-tailed)		.284
	N	867	867
TTLCTUS	Pearson Correlation	-.019	1
	Sig. (1-tailed)	.284	
	N	867	867

$H_0$1.2.

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 2 Cum. GPA	867	3.44	.345
TTLCTUS	867	54.95	8.952
Valid N (listwise)	867		



Correlations

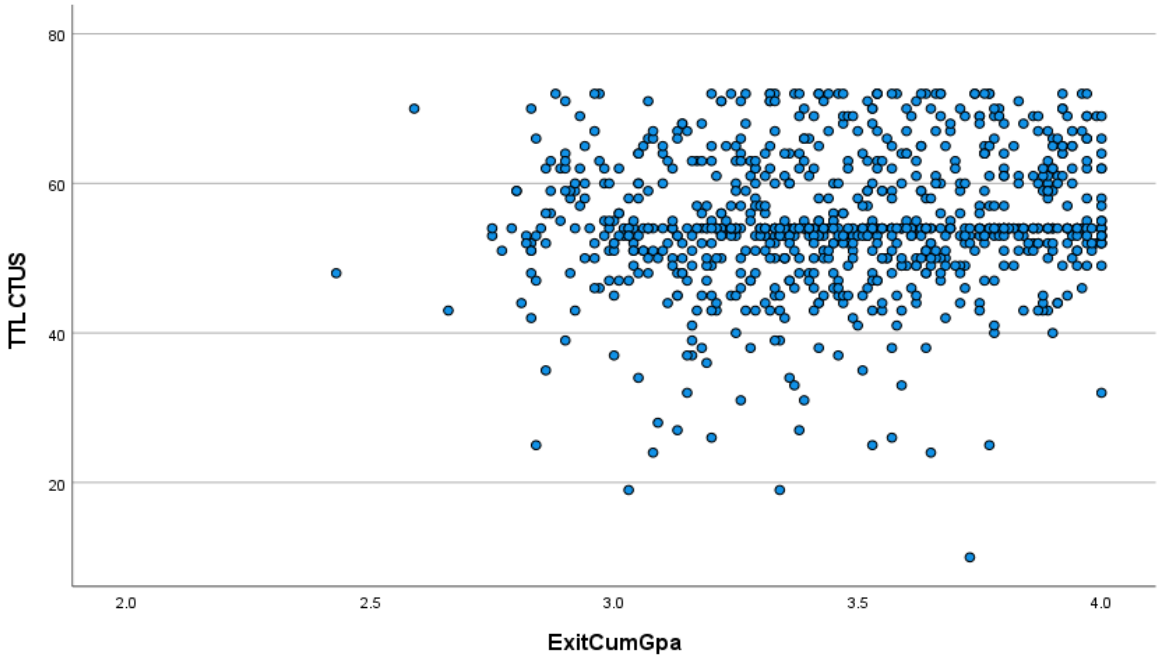
		Stage 2 Cum. GPA	TTLCTUS
Stage 2 Cum. GPA	Pearson Correlation	1	.061*
	Sig. (1-tailed)		.036
	N	867	867
TTLCTUS	Pearson Correlation	.061*	1
	Sig. (1-tailed)	.036	
	N	867	867

*. Correlation is significant at the 0.05 level (1-tailed).

$H_0$1.3.

Descriptive Statistics

	N	Mean	Std. Deviation
ExitCumGpa	861	3.47	.320
TTL CTUS	861	54.97	8.996
Valid N (listwise)	861		



Correlations

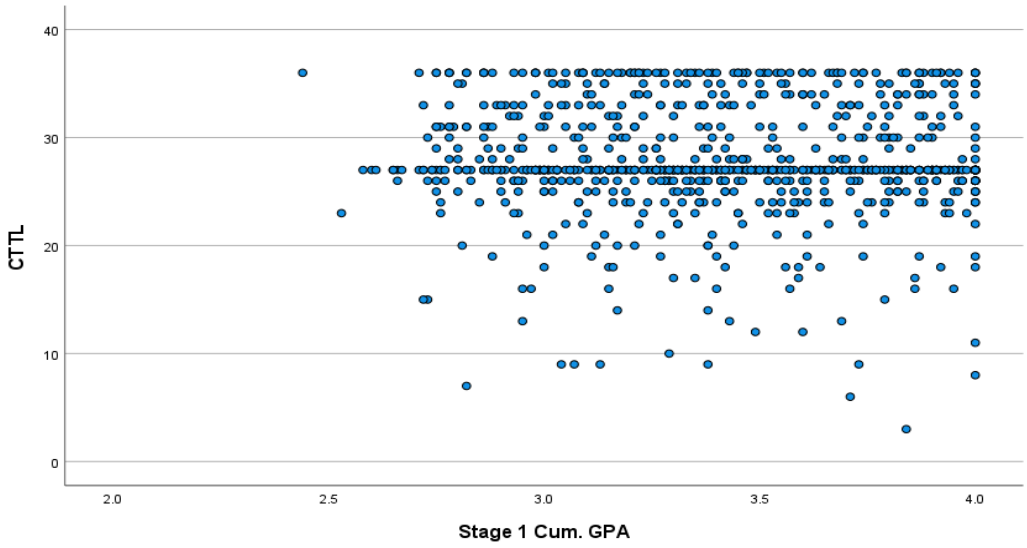
		ExitCumGpa	TTL CTUS
ExitCumGpa	Pearson Correlation	1	.104**
	Sig. (1-tailed)		.001
	N	861	861
TTL CTUS	Pearson Correlation	.104**	1
	Sig. (1-tailed)	.001	
	N	861	861

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$1.4.

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 1 Cum. GPA	867	3.42	.376
CT TL	867	27.84	5.063
Valid N (listwise)	867		



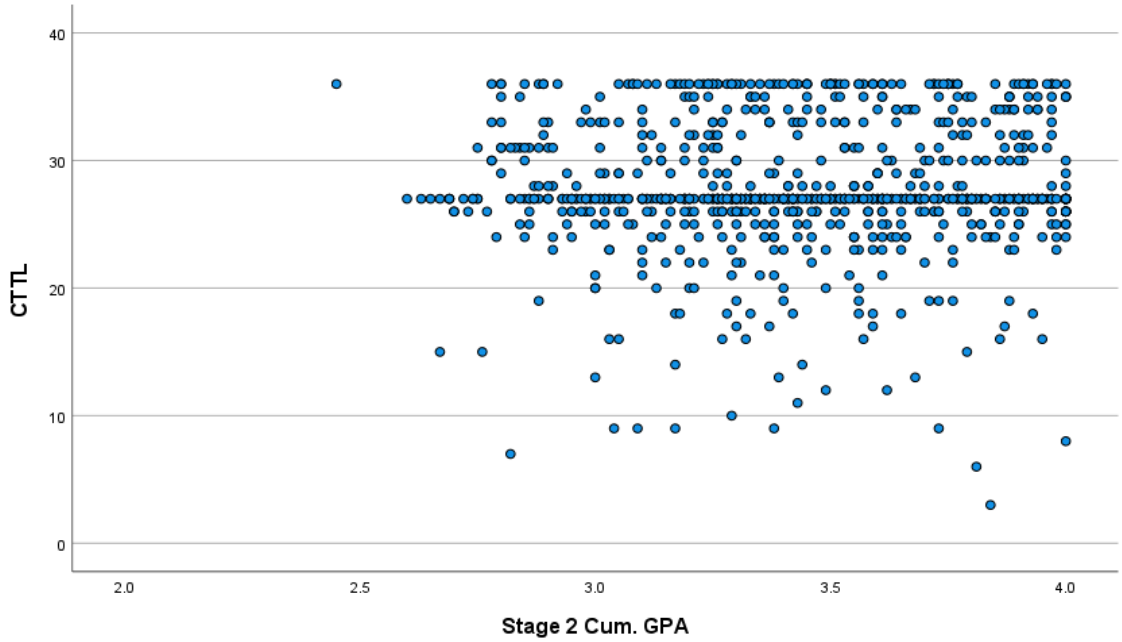
Correlations

		Stage 1 Cum. GPA	CT TL
Stage 1 Cum. GPA	Pearson Correlation	1	-.036
	Sig. (1-tailed)		.143
	N	867	867
CT TL	Pearson Correlation	-.036	1
	Sig. (1-tailed)	.143	
	N	867	867

$H_0$1.5.

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 2 Cum. GPA	867	3.44	.345
CT TL	867	27.84	5.063
Valid N (listwise)	867		



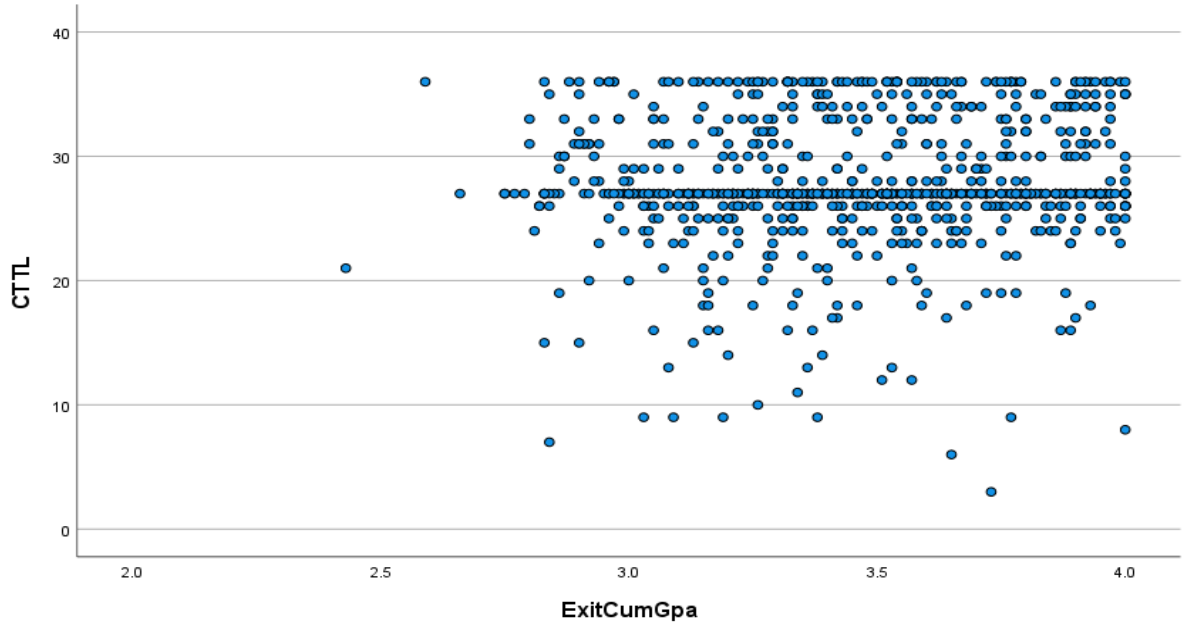
Correlations

		Stage 2 Cum. GPA	CT TL
Stage 2 Cum. GPA	Pearson Correlation	1	.026
	Sig. (1-tailed)		.219
	N	867	867
CT TL	Pearson Correlation	.026	1
	Sig. (1-tailed)	.219	
	N	867	867

$H_0$1.6.

Descriptive Statistics

	N	Mean	Std. Deviation
ExitCumGpa	861	3.47	.320
CT TL	861	27.86	5.085
Valid N (listwise)	861		



Correlations

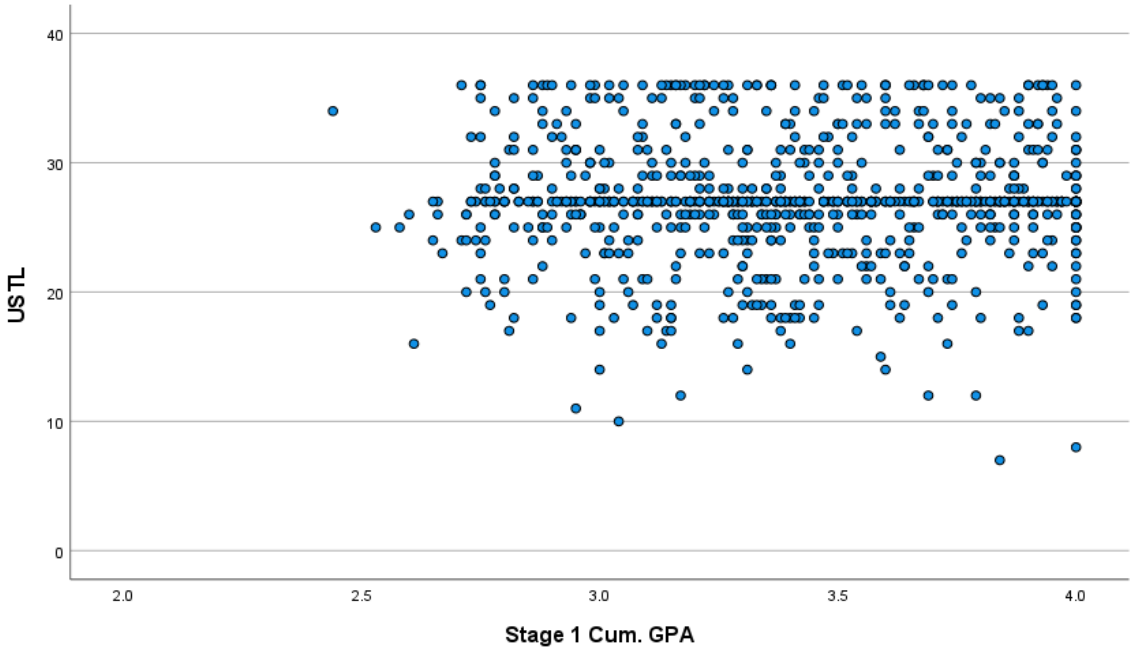
		ExitCumGpa	CT TL
ExitCumGpa	Pearson Correlation	1	.074*
	Sig. (1-tailed)		.015
	N	861	861
CT TL	Pearson Correlation	.074*	1
	Sig. (1-tailed)	.015	
	N	861	861

*. Correlation is significant at the 0.05 level (1-tailed).

$H_0$1.7.

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 1 Cum. GPA	867	3.42	.376
US TL	867	27.11	4.713
Valid N (listwise)	867		



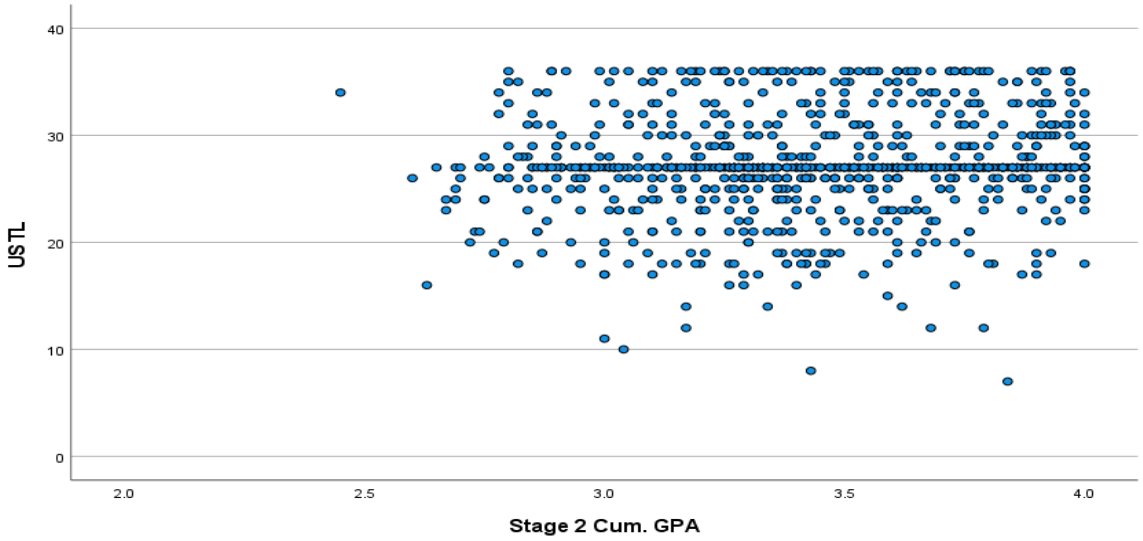
Correlations

		Stage 1 Cum. GPA	US TL
Stage 1 Cum. GPA	Pearson Correlation	1	.002
	Sig. (1-tailed)		.475
	N	867	867
US TL	Pearson Correlation	.002	1
	Sig. (1-tailed)	.475	
	N	867	867

$H_0$1.8.

Descriptive Statistics

	N	Mean	Std. Deviation
Stage 2 Cum. GPA	867	3.44	.345
US TL	867	27.11	4.713
Valid N (listwise)	867		



Correlations

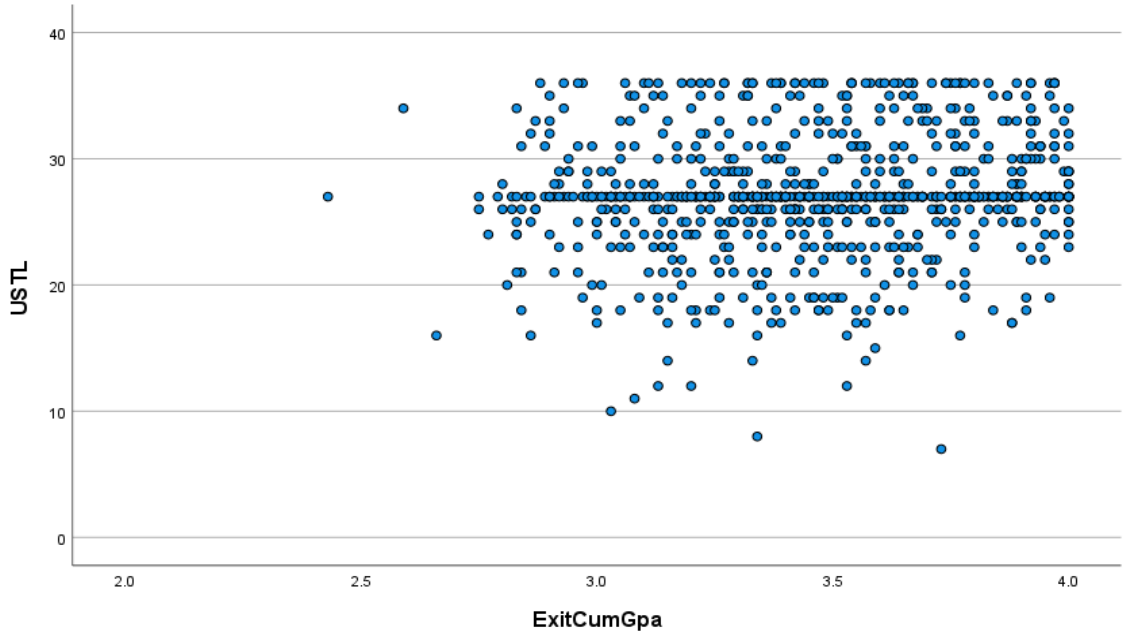
		Stage 2 Cum. GPA	US TL
Stage 2 Cum. GPA	Pearson Correlation	1	.088**
	Sig. (1-tailed)		.005
	N	867	867
US TL	Pearson Correlation	.088**	1
	Sig. (1-tailed)	.005	
	N	867	867

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$1.9.

Descriptive Statistics

	N	Mean	Std. Deviation
ExitCumGpa	861	3.47	.320
US TL	861	27.12	4.737
Valid N (listwise)	861		



Correlations

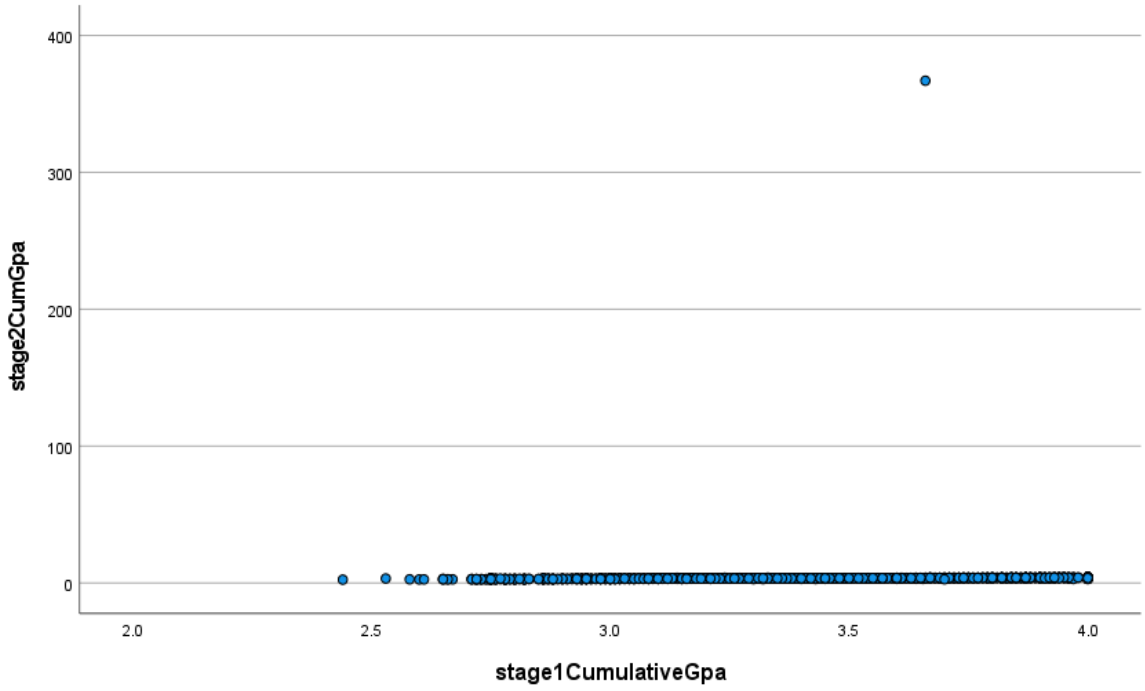
		ExitCumGpa	US TL
ExitCumGpa	Pearson Correlation	1	.119**
	Sig. (1-tailed)		<.001
	N	861	861
US TL	Pearson Correlation	.119**	1
	Sig. (1-tailed)	<.001	
	N	861	861

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.1.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1CumulativeGpa	994	3.41	.375
stage2CumGpa	994	3.81	11.537
Valid N (listwise)	994		



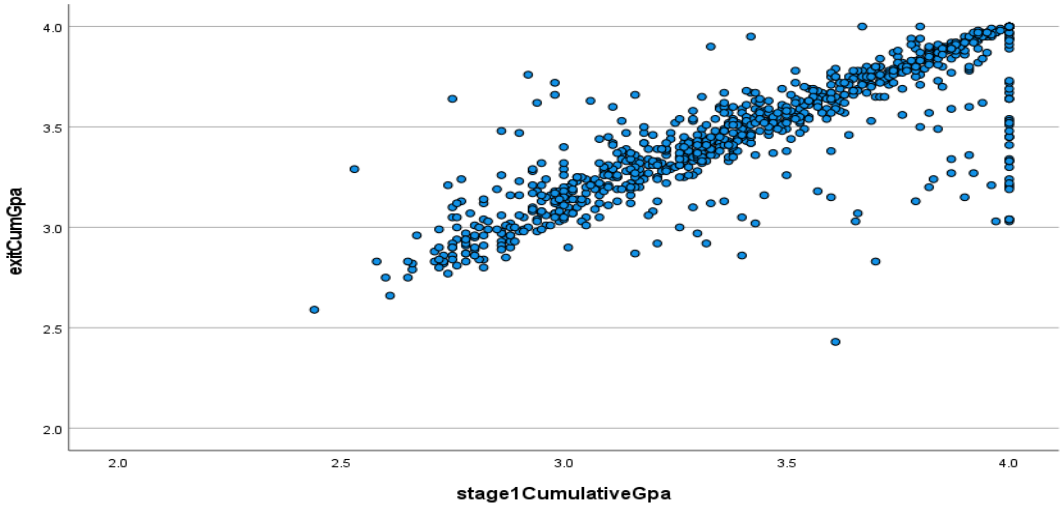
Correlations

		stage1CumulativeGpa	stage2CumGpa
stage1CumulativeGpa	Pearson Correlation	1	.048
	Sig. (1-tailed)		.066
	N	994	994
stage2CumGpa	Pearson Correlation	.048	1
	Sig. (1-tailed)	.066	
	N	994	994

$H_0$2.2.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1CumulativeGpa	862	3.42	.376
exitCumGpa	862	3.47	.320
Valid N (listwise)	862		



Correlations

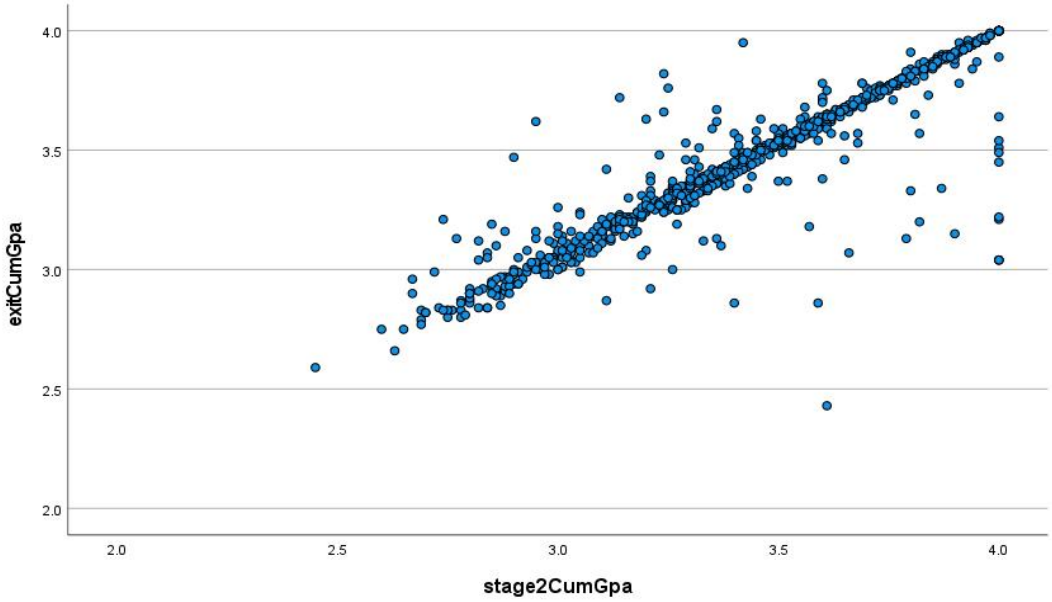
		stage1CumulativeGpa	exitCumGpa
stage1CumulativeGpa	Pearson Correlation	1	.827**
	Sig. (1-tailed)		<.001
	N	862	862
exitCumGpa	Pearson Correlation	.827**	1
	Sig. (1-tailed)	<.001	
	N	862	862

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.3.

Descriptive Statistics

	N	Mean	Std. Deviation
stage2CumGpa	866	3.44	.345
exitCumGpa	866	3.47	.320
Valid N (listwise)	866		



Correlations

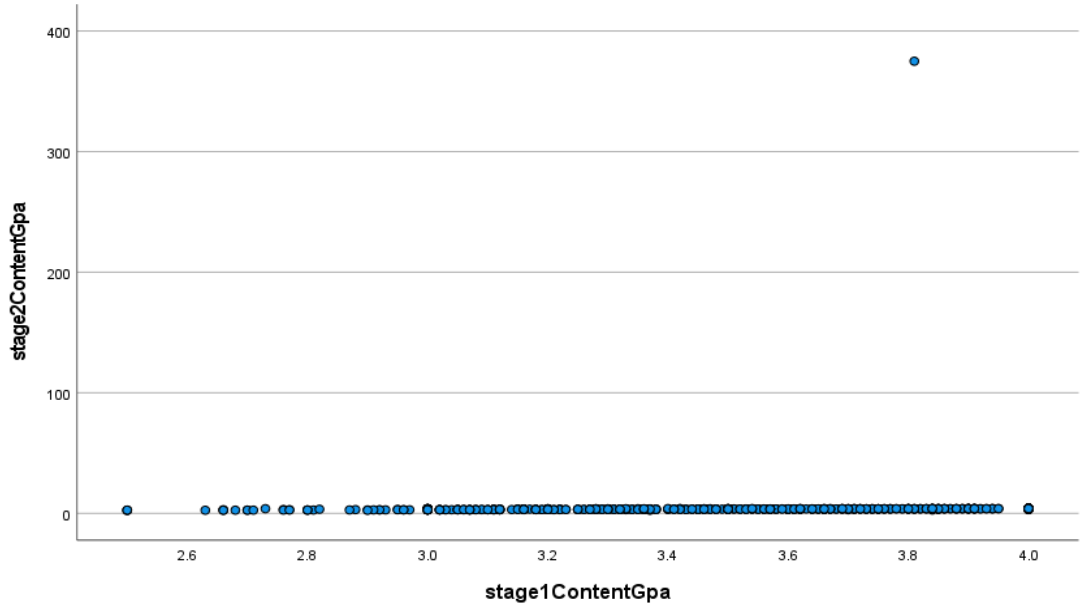
		stage2CumGpa	exitCumGpa
stage2CumGpa	Pearson Correlation	1	.919**
	Sig. (1-tailed)		.000
	N	866	866
exitCumGpa	Pearson Correlation	.919**	1
	Sig. (1-tailed)	.000	
	N	866	866

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.4.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1ContentGpa	621	3.55	.370
stage2ContentGpa	621	4.20	14.908
Valid N (listwise)	621		



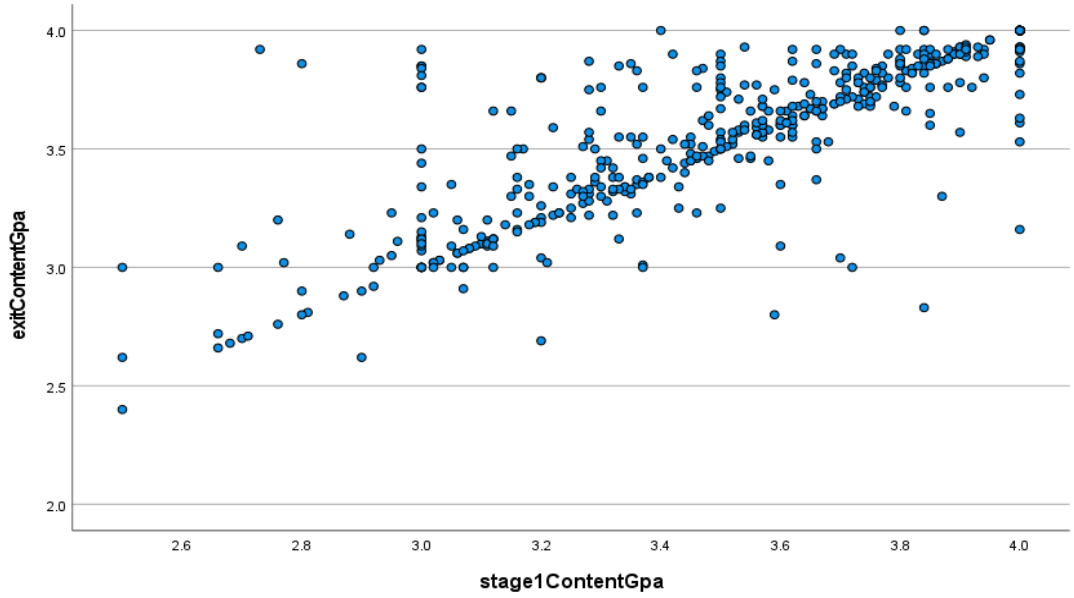
Correlations

		stage1ContentGpa	stage2ContentGpa
stage1ContentGpa	Pearson Correlation	1	.048
	Sig. (1-tailed)		.118
	N	621	621
stage2ContentGpa	Pearson Correlation	.048	1
	Sig. (1-tailed)	.118	
	N	621	621

$H_0$2.5.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1ContentGpa	523	3.55	.366
exitContentGpa	523	3.60	.348
Valid N (listwise)	523		



Correlations

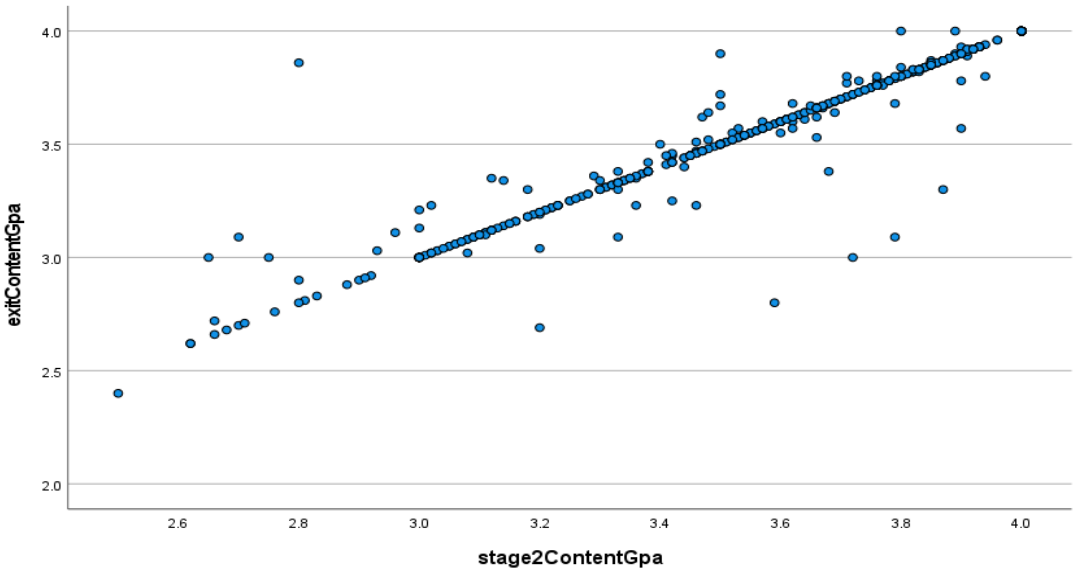
		stage1ContentGpa	exitContentGpa
stage1ContentGpa	Pearson Correlation	1	.837**
	Sig. (1-tailed)		<.001
	N	523	523
exitContentGpa	Pearson Correlation	.837**	1
	Sig. (1-tailed)	<.001	
	N	523	523

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.6.

Descriptive Statistics

	N	Mean	Std. Deviation
stage2ContentGpa	568	3.61	.347
exitContentGpa	568	3.61	.345
Valid N (listwise)	568		



Correlations

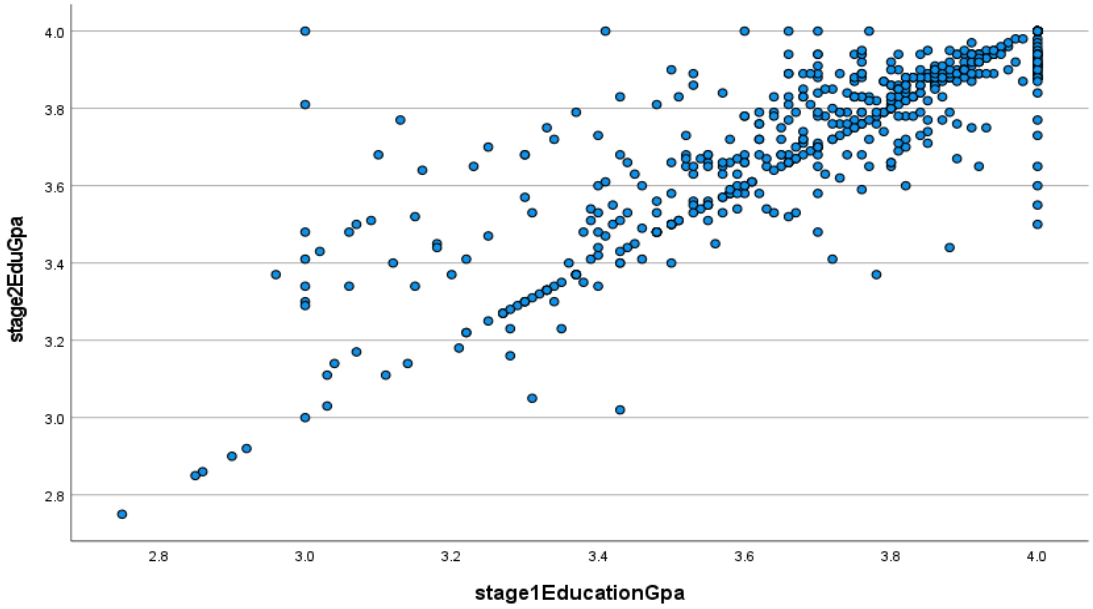
		stage2ContentGpa	exitContentGpa
stage2ContentGpa	Pearson Correlation	1	.965**
	Sig. (1-tailed)		.000
	N	568	568
exitContentGpa	Pearson Correlation	.965**	1
	Sig. (1-tailed)	.000	
	N	568	568

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.7.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1EducationGpa	1000	3.82	.250
stage2EduGpa	1000	3.84	.217
Valid N (listwise)	1000		



Correlations

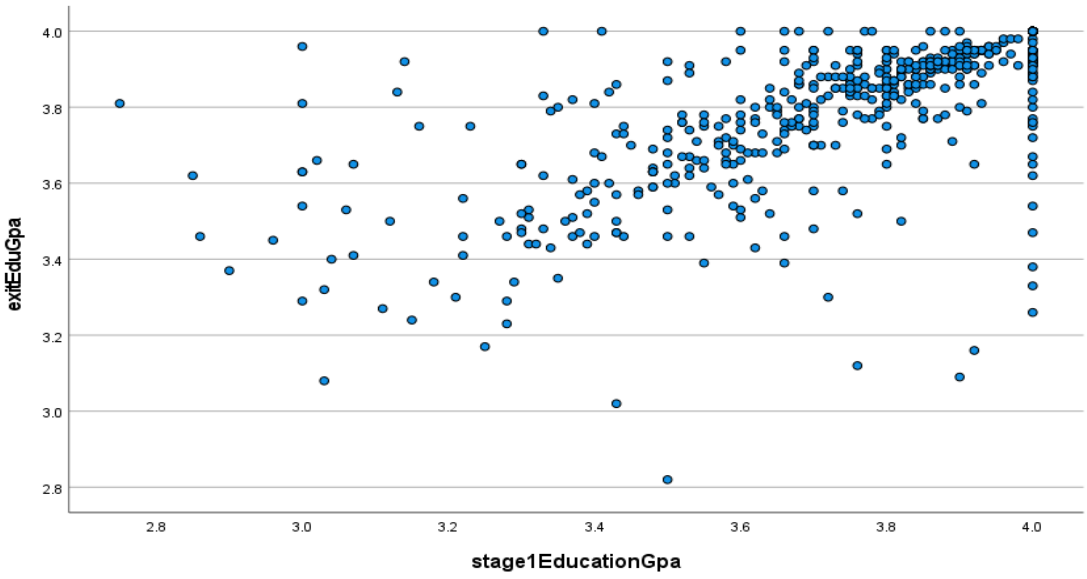
		stage1EducationGpa	stage2EduGpa
stage1EducationGpa	Pearson Correlation	1	.897**
	Sig. (1-tailed)		.000
	N	1000	1000
stage2EduGpa	Pearson Correlation	.897**	1
	Sig. (1-tailed)	.000	
	N	1000	1000

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.8.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1EducationGpa	862	3.83	.242
exitEduGpa	862	3.87	.183
Valid N (listwise)	862		



Correlations

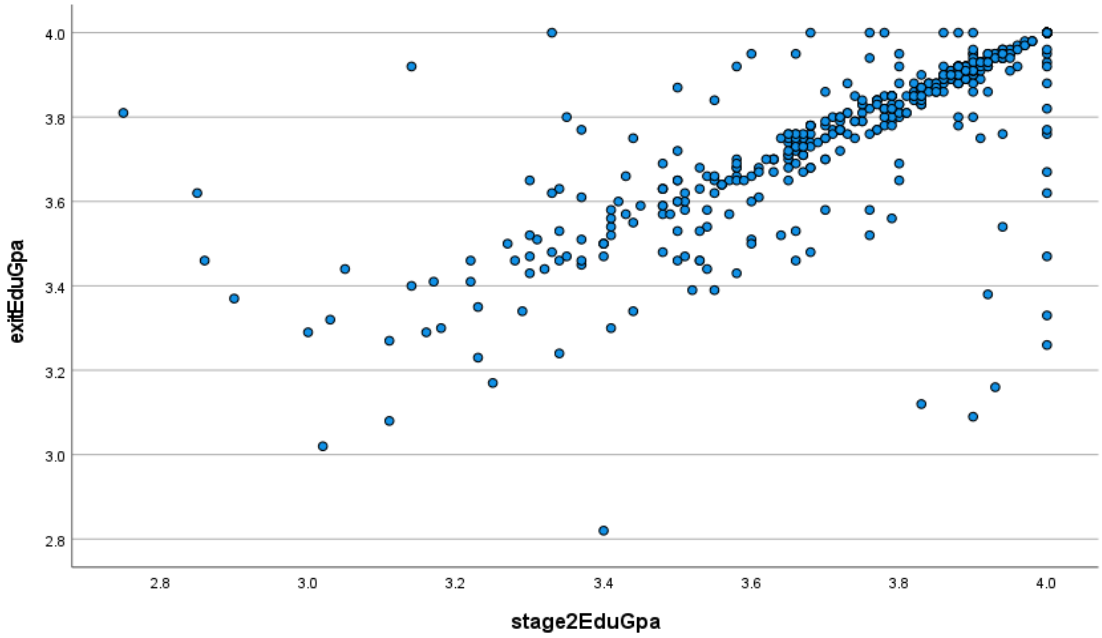
		stage1EducationGpa	exitEduGpa
stage1EducationGpa	Pearson Correlation	1	.757**
	Sig. (1-tailed)		<.001
	N	862	862
exitEduGpa	Pearson Correlation	.757**	1
	Sig. (1-tailed)	<.001	
	N	862	862

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$2.9.

Descriptive Statistics

	N	Mean	Std. Deviation
stage2EduGpa	866	3.85	.214
exitEduGpa	866	3.87	.183
Valid N (listwise)	866		



Correlations

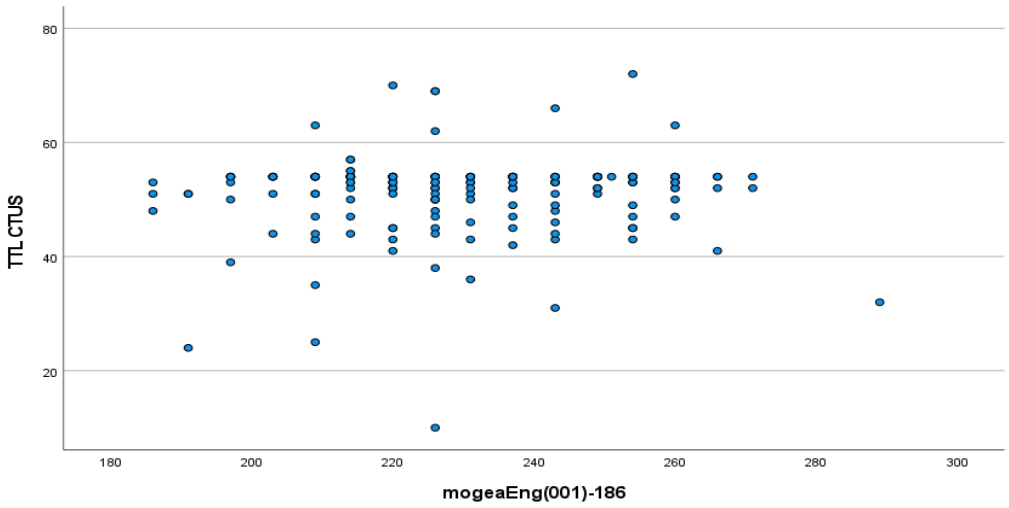
		stage2EduGpa	exitEduGpa
stage2EduGpa	Pearson Correlation	1	.840**
	Sig. (1-tailed)		<.001
	N	866	866
exitEduGpa	Pearson Correlation	.840**	1
	Sig. (1-tailed)	<.001	
	N	866	866

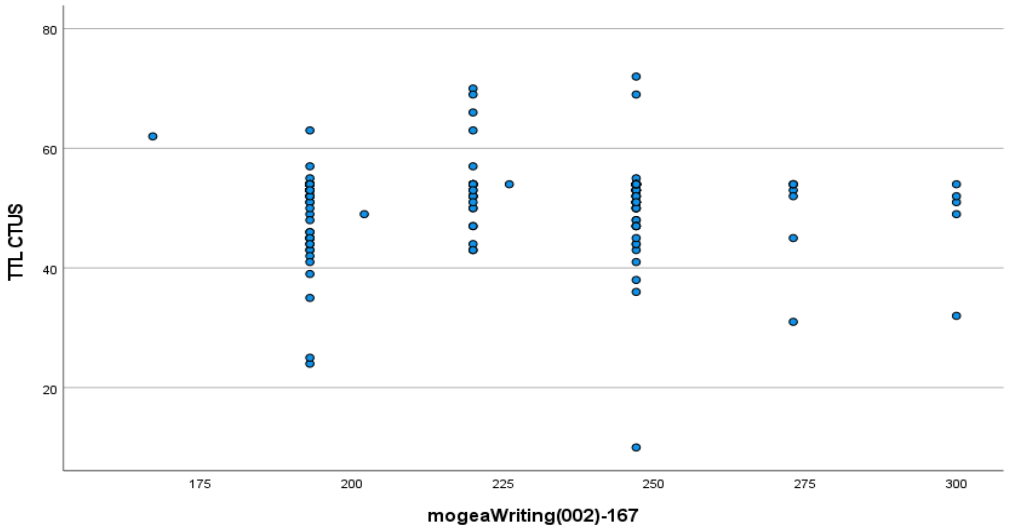
**. Correlation is significant at the 0.01 level (1-tailed).

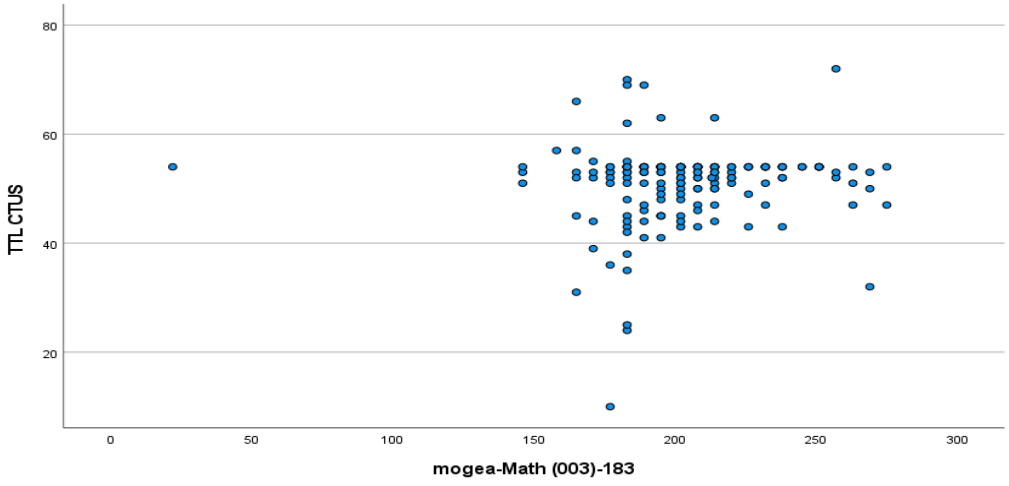
$H_0$3.1.

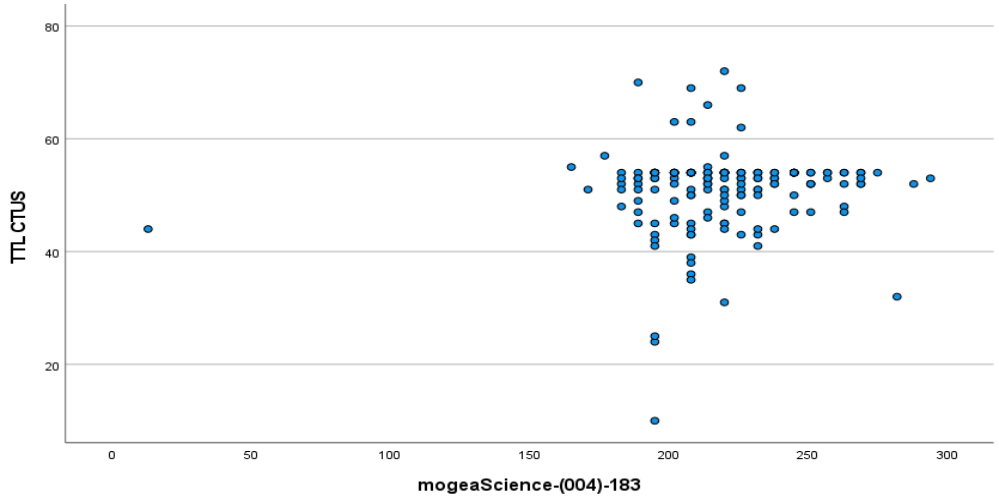
Descriptive Statistics

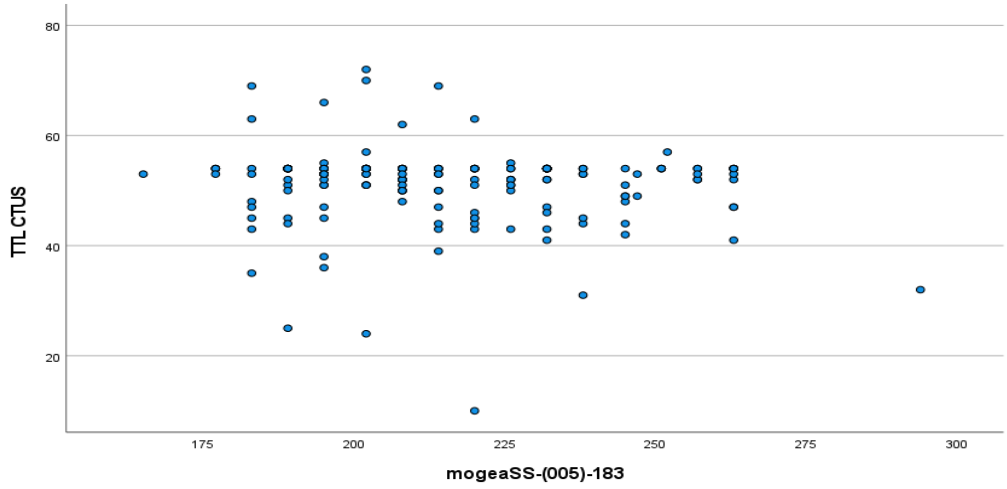
	N	Mean	Std. Deviation
mogeaEng(001)-186	167	229.37	20.534
mogeaWriting(002)-167	167	228.43	28.498
mogea-Math (003)-183	167	203.38	30.369
mogeaScience-(004)-183	167	218.73	29.314
mogeaSS-(005)-183	167	216.04	24.214
TTL CTUS	167	50.98	7.249
Valid N (listwise)	167		


TTL CTUS
80
60
40
20
180
200
220
240
260
280
300
mogeaEng(001)-186


TTL CTUS
80
60
40
20
175
200
225
250
275
300
mogeaWriting(002)-167


TTL CTUS
80
60
40
20
0
50
100
150
200
250
300
mogea-Math (003)-183





Correlations

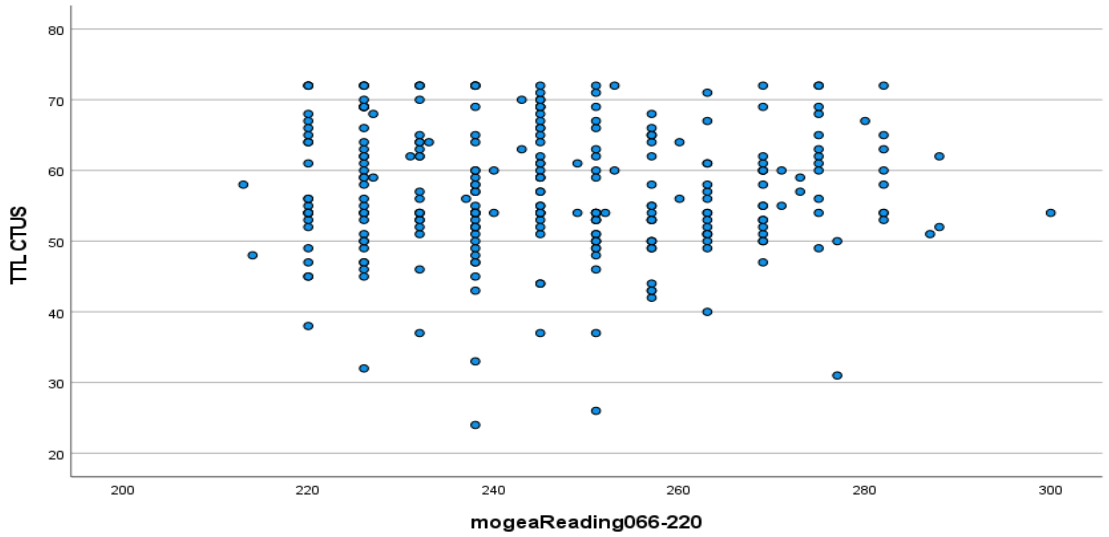
		mogeaEng(001)-186	mogeaWriting(002)-167	mogea-Math (003)-183	mogeaScience-(004)-183	mogeaSS-(005)-183	TTL CTUS
mogeaEng(001)-186	Pearson Correlation	1	.344**	.215**	.425**	.444**	.044
	Sig. (1-tailed)		<.001	.003	<.001	<.001	.288
	N	167	167	167	167	167	167
mogeaWriting(002)-167	Pearson Correlation	.344**	1	.289**	.298**	.245**	.018
	Sig. (1-tailed)	<.001		<.001	<.001	<.001	.406
	N	167	167	167	167	167	167
mogea-Math (003)-183	Pearson Correlation	.215**	.289**	1	.380**	.318**	.079
	Sig. (1-tailed)	.003	<.001		<.001	<.001	.156
	N	167	167	167	167	167	167
mogeaScience-(004)-183	Pearson Correlation	.425**	.298**	.380**	1	.386**	.098
	Sig. (1-tailed)	<.001	<.001	<.001		<.001	.103
	N	167	167	167	167	167	167
mogeaSS-(005)-183	Pearson Correlation	.444**	.245**	.318**	.386**	1	-.099
	Sig. (1-tailed)	<.001	<.001	<.001	<.001		.102
	N	167	167	167	167	167	167
TTL CTUS	Pearson Correlation	.044	.018	.079	.098	-.099	1
	Sig. (1-tailed)	.288	.406	.156	.103	.102	
	N	167	167	167	167	167	167

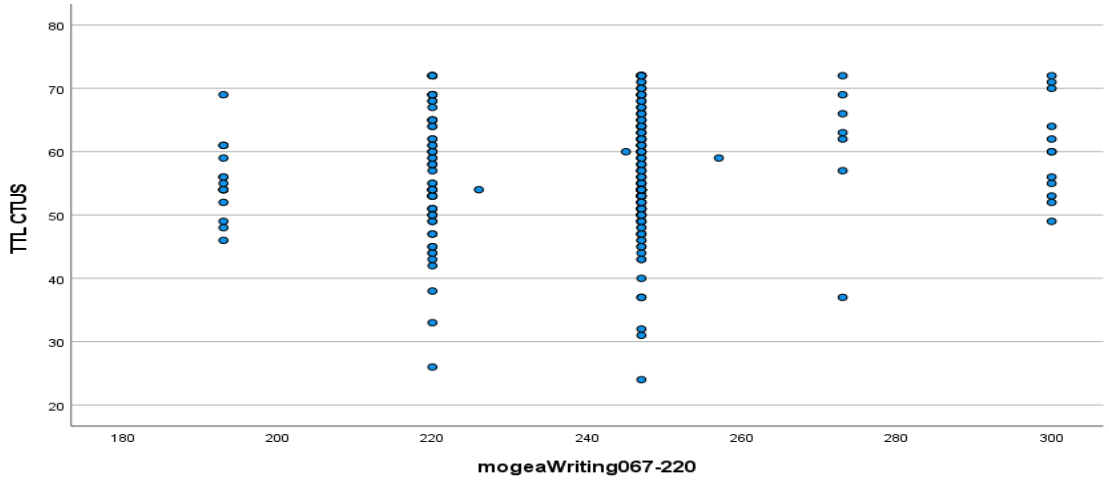
**. Correlation is significant at the 0.01 level (1-tailed).

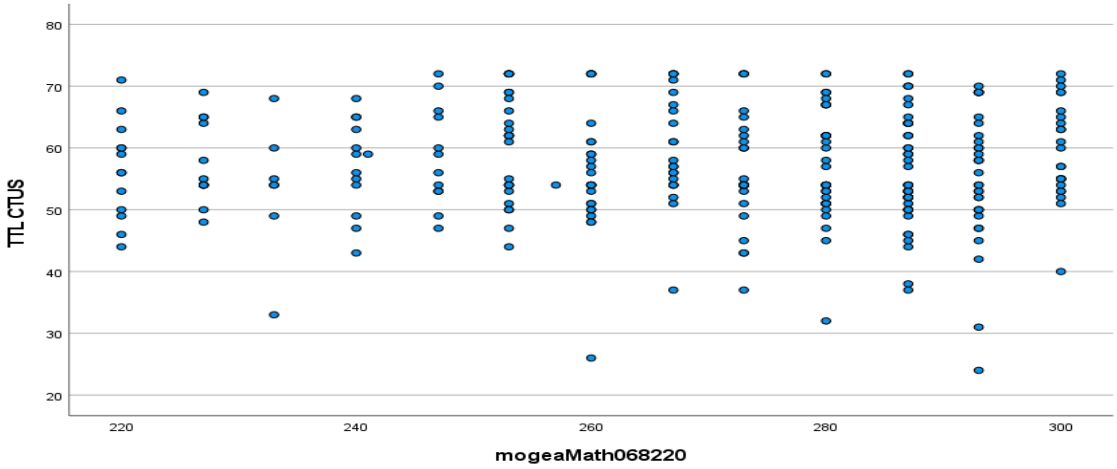
$H_0$3.2.

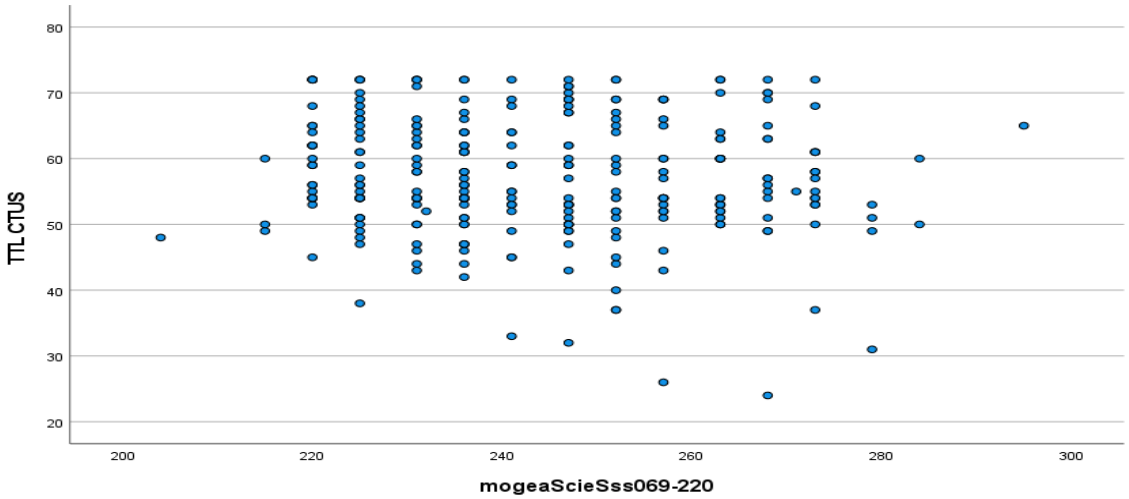
Descriptive Statistics

	N	Mean	Std. Deviation
mogeaReading066-220	282	246.26	18.084
mogeaWriting067-220	282	241.24	20.286
mogeaMath068220	282	269.00	22.761
mogeaScieSss069-220	282	244.05	17.231
TTL CTUS	282	57.26	8.934
Valid N (listwise)	282		









Correlations

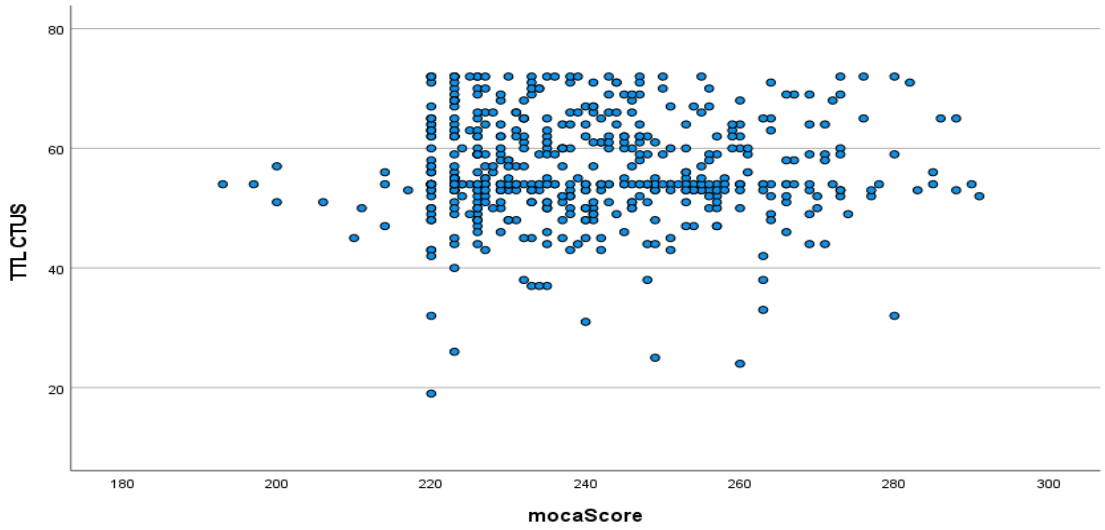
		mogeaReading066-220	mogeaWriting067-220	mogeaMath068220	mogeaScieSss069-220	TTL CTUS
mogeaReading066-220	Pearson Correlation	1	.094	.258**	.454**	-.026
	Sig. (1-tailed)		.057	<.001	<.001	.329
	N	282	282	282	282	282
mogeaWriting067-220	Pearson Correlation	.094	1	.192**	.265**	.108*
	Sig. (1-tailed)	.057		<.001	<.001	.035
	N	282	282	282	282	282
mogeaMath068220	Pearson Correlation	.258**	.192**	1	.476**	-.012
	Sig. (1-tailed)	<.001	<.001		<.001	.420
	N	282	282	282	282	282
mogeaScieSss069-220	Pearson Correlation	.454**	.265**	.476**	1	-.086
	Sig. (1-tailed)	<.001	<.001	<.001		.076
	N	282	282	282	282	282
TTL CTUS	Pearson Correlation	-.026	.108*	-.012	-.086	1
	Sig. (1-tailed)	.329	.035	.420	.076	
	N	282	282	282	282	282

**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

$H_0$3.3.

Descriptive Statistics

	N	Mean	Std. Deviation
mocaScore	515	239.95	17.137
TTL CTUS	515	56.48	8.459
Valid N (listwise)	515		



Correlations

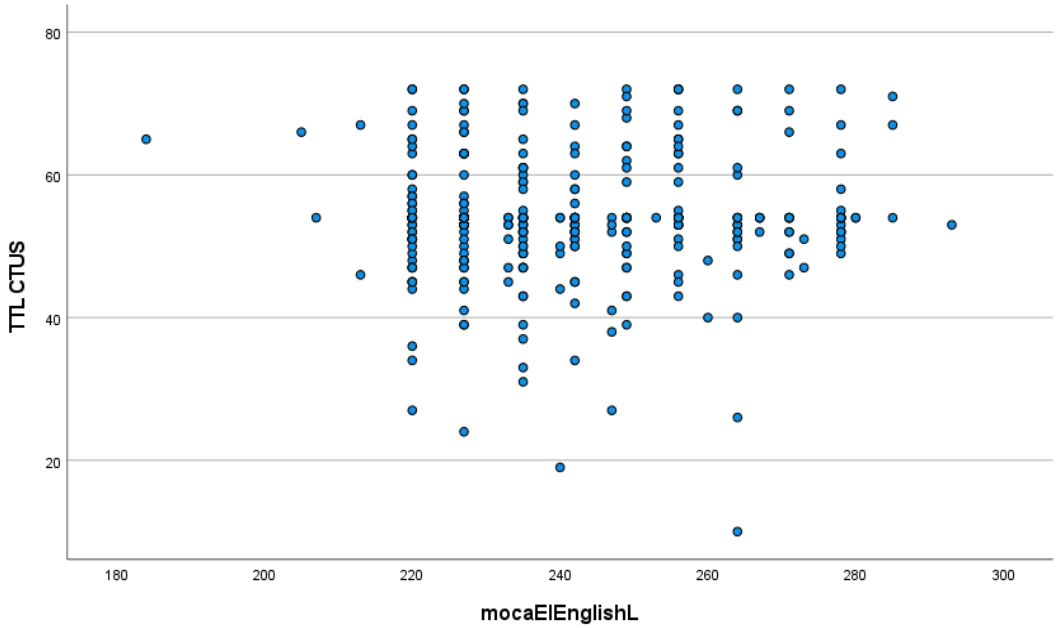
		mocaScore	TTL CTUS
mocaScore	Pearson Correlation	1	-.005
	Sig. (1-tailed)		.457
	N	515	515
TTL CTUS	Pearson Correlation	-.005	1
	Sig. (1-tailed)	.457	
	N	515	515

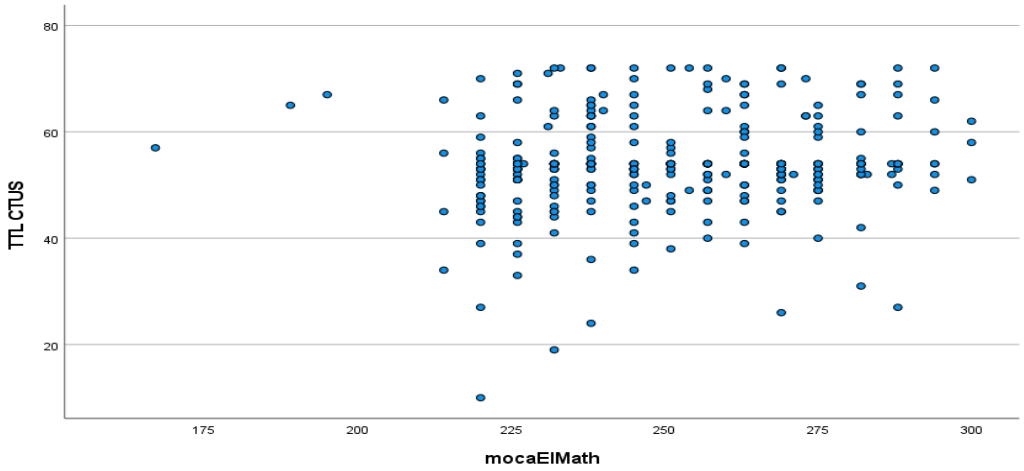
$H_0$3.4.

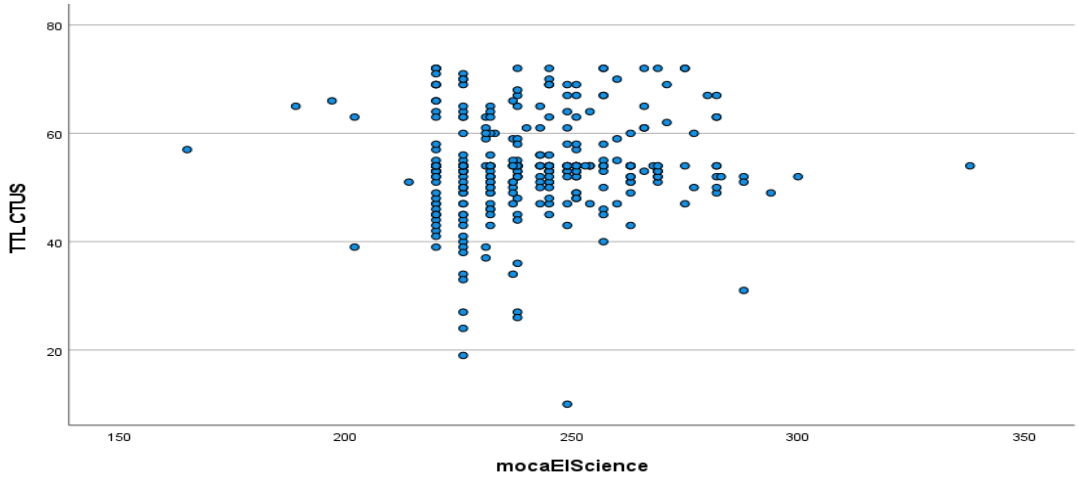
Descriptive Statistics

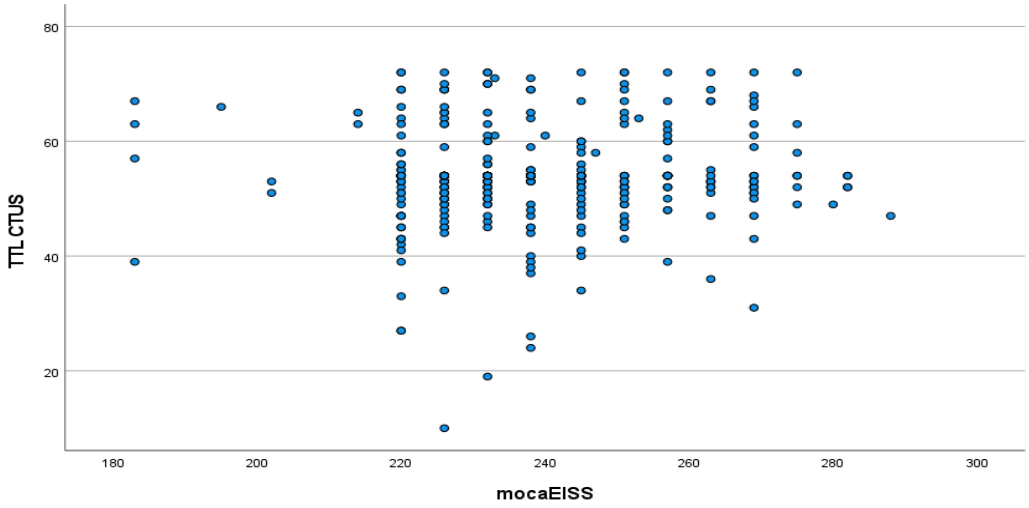
	N	Mean	Std. Deviation
mocaElEnglishL	323	241.84	18.646
mocaElMath	323	250.93	22.525
mocaElScience	323	241.23	19.576
mocaElSS	323	239.36	17.941

TTL CTUS	323	53.95	9.051
Valid N (listwise)	323		









Correlations

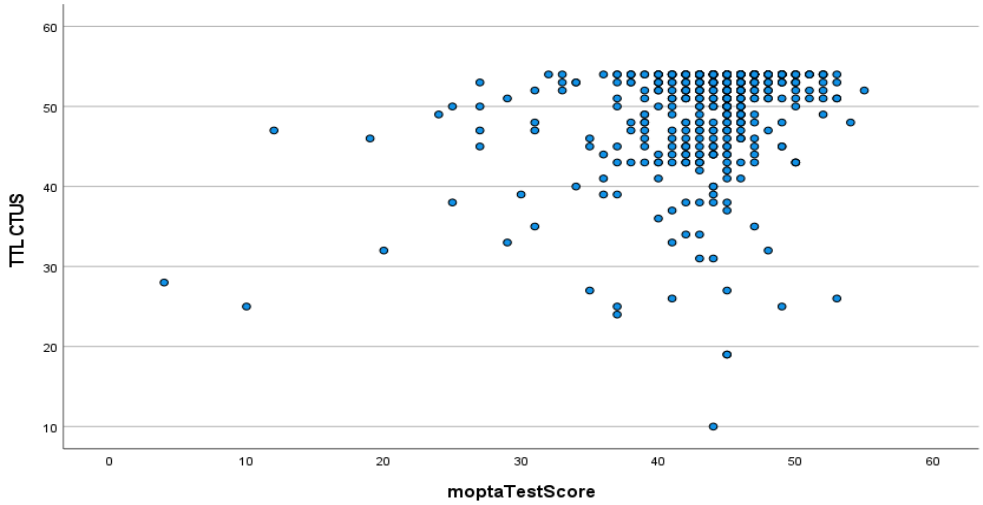
		mocaElEnglishL	mocaElMath	mocaElScience	mocaElSS	TTL CTUS
mocaElEnglishL	Pearson Correlation	1	.416**	.480**	.393**	.037
	Sig. (1-tailed)		<.001	<.001	<.001	.252
	N	323	323	323	323	323
mocaElMath	Pearson Correlation	.416**	1	.481**	.466**	.109*
	Sig. (1-tailed)	<.001		<.001	<.001	.025
	N	323	323	323	323	323
mocaElScience	Pearson Correlation	.480**	.481**	1	.554**	.070
	Sig. (1-tailed)	<.001	<.001		<.001	.105
	N	323	323	323	323	323
mocaElSS	Pearson Correlation	.393**	.466**	.554**	1	.051
	Sig. (1-tailed)	<.001	<.001	<.001		.181
	N	323	323	323	323	323
TTL CTUS	Pearson Correlation	.037	.109*	.070	.051	1
	Sig. (1-tailed)	.252	.025	.105	.181	
	N	323	323	323	323	323

**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

$H_0$3.5.

Descriptive Statistics

	N	Mean	Std. Deviation
moptaTestScore	477	43.61	5.600
TTL CTUS	477	49.55	6.441
Valid N (listwise)	477		



Correlations

		moptaTestScore	TTL CTUS
moptaTestScore	Pearson Correlation	1	.298**
	Sig. (1-tailed)		<.001
	N	477	477
TTL CTUS	Pearson Correlation	.298**	1
	Sig. (1-tailed)	<.001	
	N	477	477

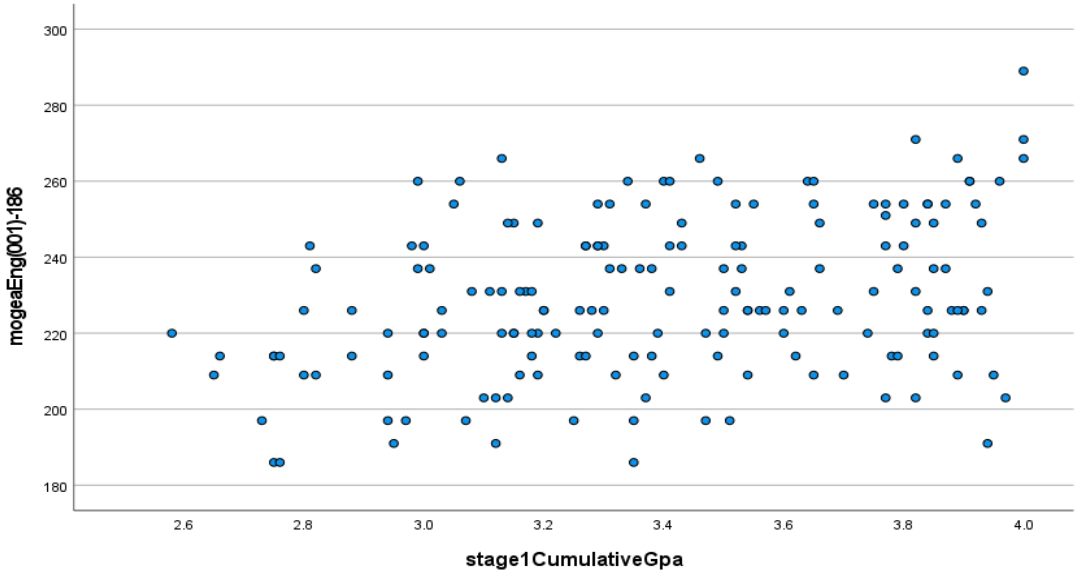
**. Correlation is significant at the 0.01 level (1-tailed).

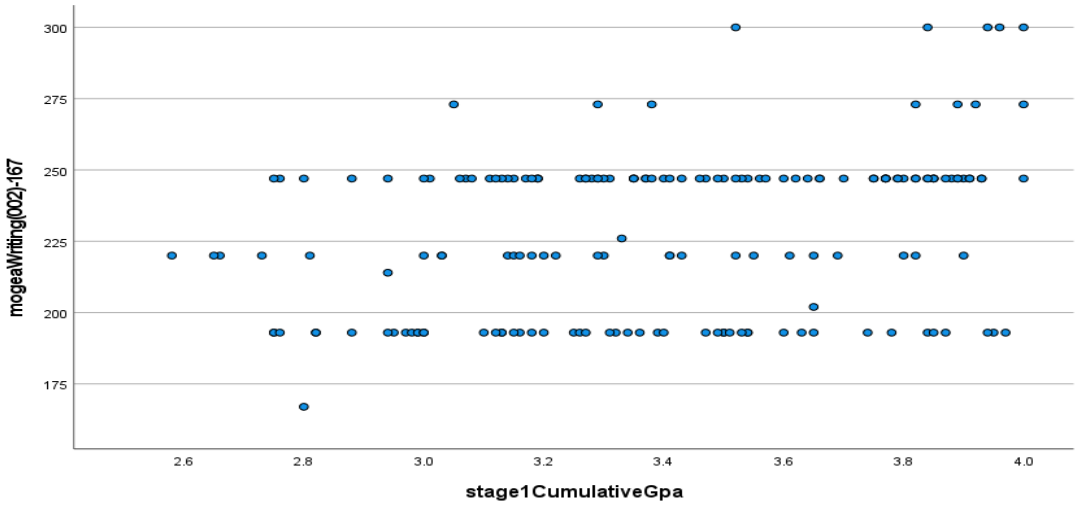
$H_0$4.1.

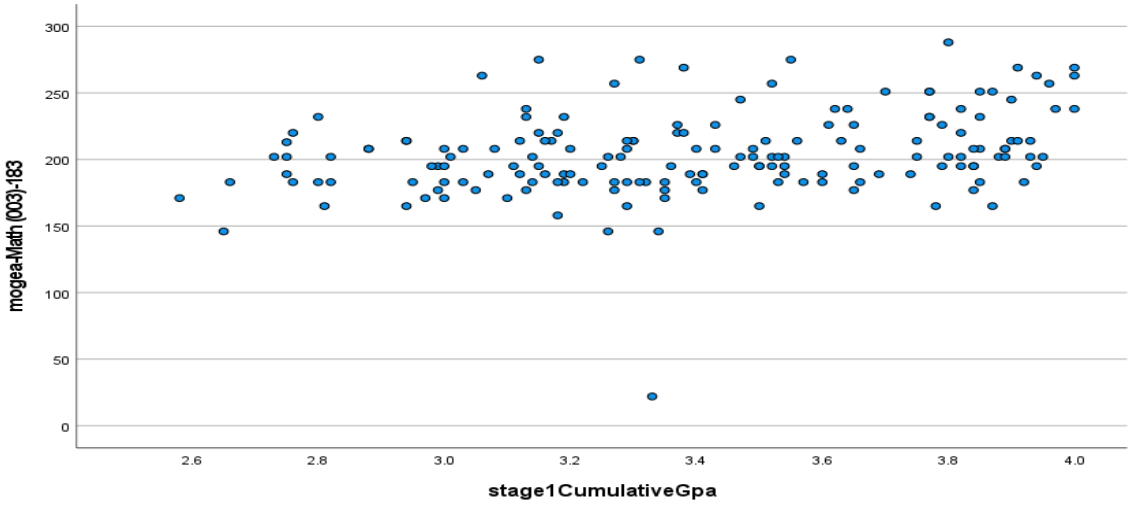
Descriptive Statistics

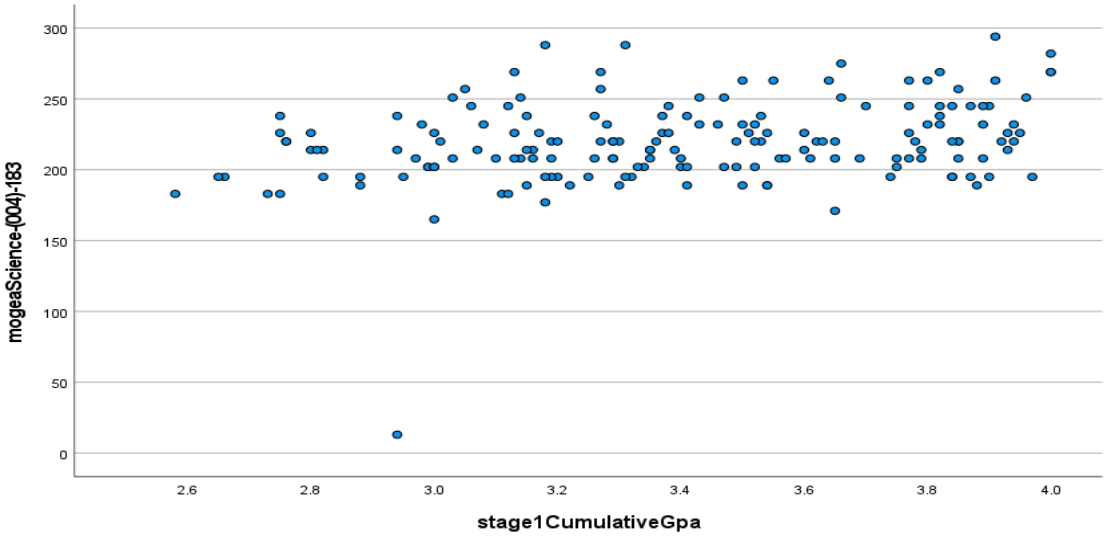
	N	Mean	Std. Deviation
stage1CumulativeGpa	171	3.40	.361
mogeaEng(001)-186	171	229.42	20.657
mogeaWriting(002)-167	171	228.51	28.262
mogea-Math (003)-183	171	204.27	31.236

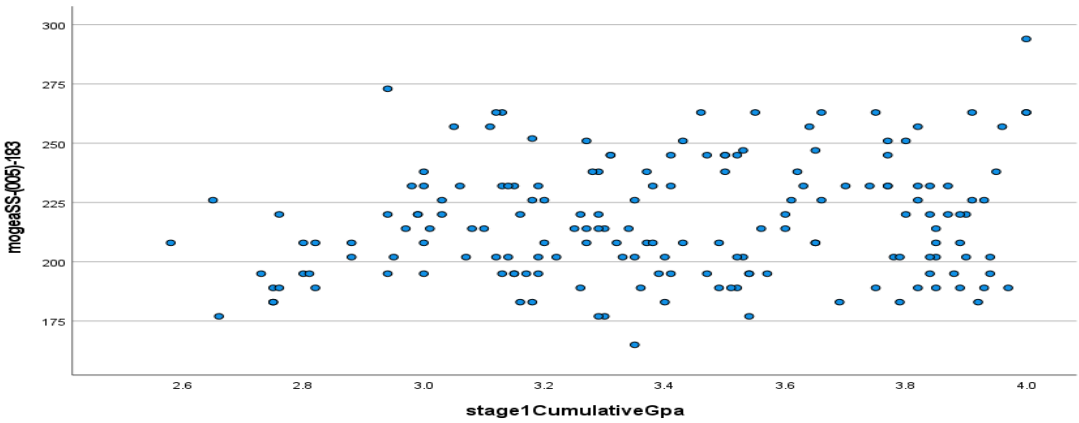
mogeaScience-(004)-183	171	219.59	29.625
mogeaSS-(005)-183	171	216.95	24.478
Valid N (listwise)	171		






mogea-Math (003)-183
300
250
200
150
100
50
0
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
stage1CumulativeGpa


mogeaScience-(004)-183
300
250
200
150
100
50
0
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
stage1CumulativeGpa


mogeaSS-(005)-183
300
275
250
225
200
175
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
stage1CumulativeGpa

Correlations

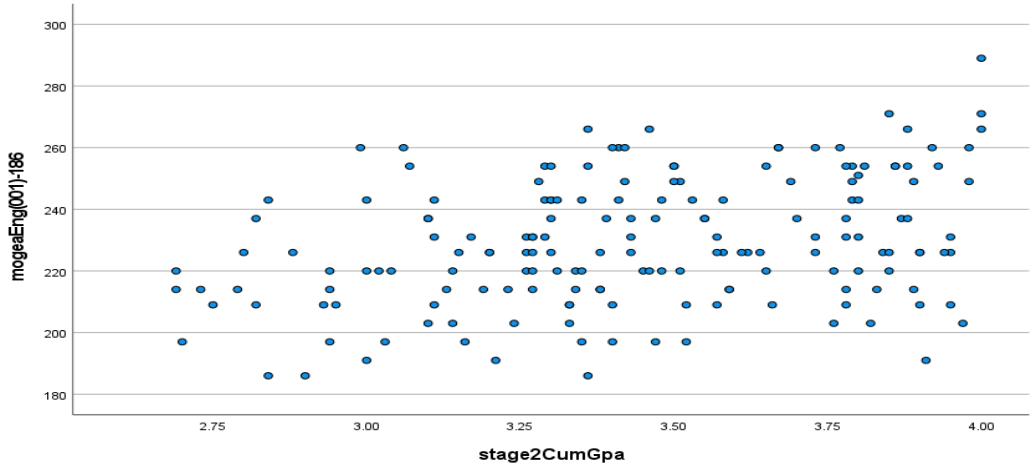
		stage1CumulativeGpa	mogeaEng(001)-186	mogeaWriting(002)-167	mogea-Math (003)-183	mogeaScience-(004)-183	mogeaSS-(005)-183
stage1CumulativeGpa	Pearson Correlation	1	.342**	.326**	.308**	.298**	.182**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001	.009
	N	171	171	171	171	171	171
mogeaEng(001)-186	Pearson Correlation	.342**	1	.346**	.240**	.427**	.419**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001	<.001
	N	171	171	171	171	171	171
mogeaWriting(002)-167	Pearson Correlation	.326**	.346**	1	.294**	.297**	.228**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001	.001
	N	171	171	171	171	171	171
mogea-Math (003)-183	Pearson Correlation	.308**	.240**	.294**	1	.415**	.345**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001	<.001
	N	171	171	171	171	171	171
mogeaScience-(004)-183	Pearson Correlation	.298**	.427**	.297**	.415**	1	.401**
	Sig. (1-tailed)	<.001	<.001	<.001	<.001		<.001
	N	171	171	171	171	171	171
mogeaSS-(005)-183	Pearson Correlation	.182**	.419**	.228**	.345**	.401**	1
	Sig. (1-tailed)	.009	<.001	.001	<.001	<.001	
	N	171	171	171	171	171	171

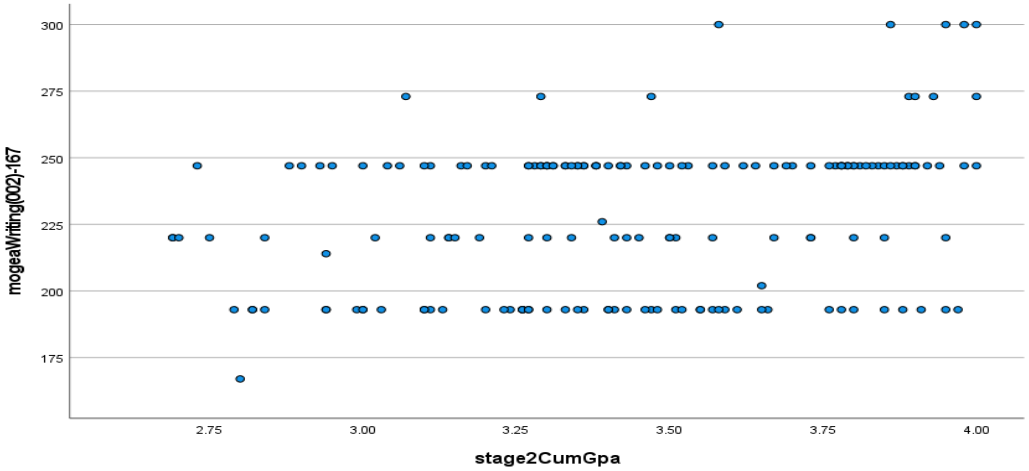
**. Correlation is significant at the 0.01 level (1-tailed).

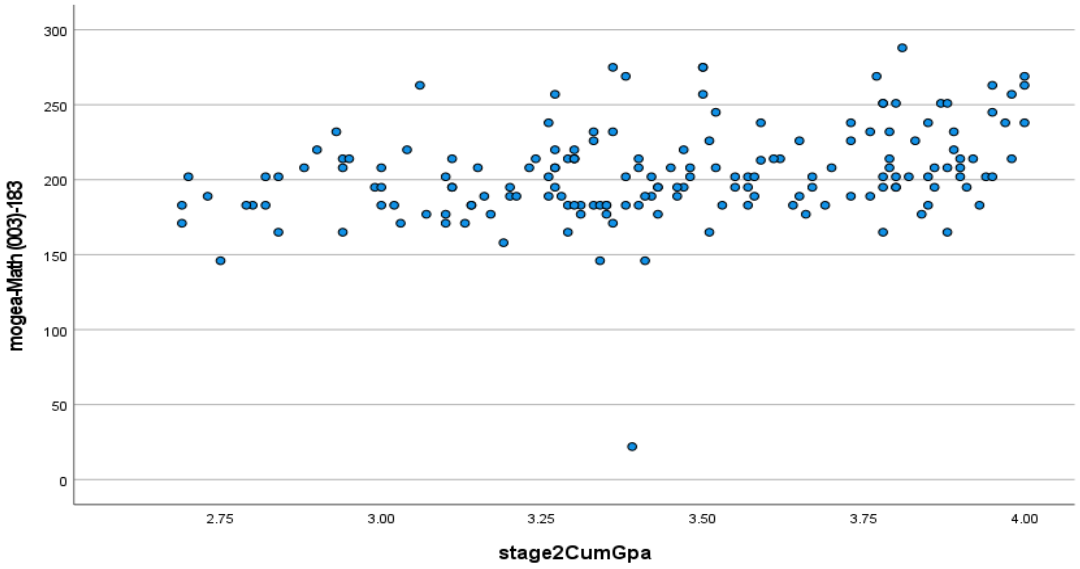
$H_0$4.2.

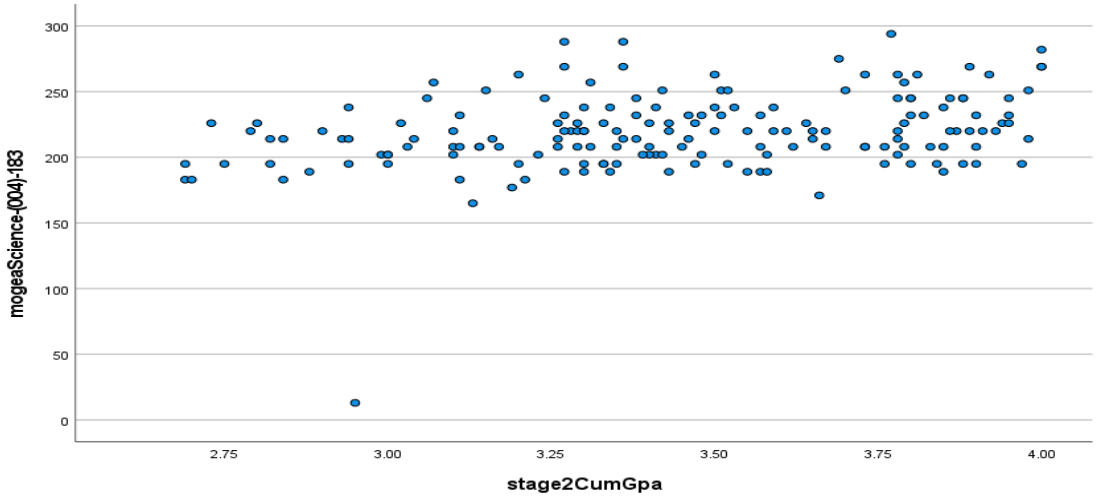
Descriptive Statistics

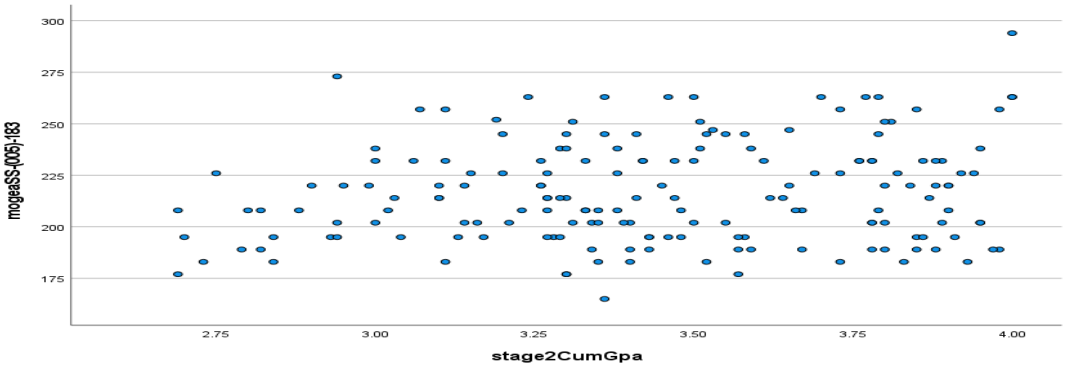
	N	Mean	Std. Deviation
stage2CumGpa	172	3.44	.342
mogeaEng(001)-186	172	229.30	20.656
mogeaWriting(002)-167	172	228.31	28.309
mogea-Math (003)-183	172	204.30	31.146
mogeaScience-(004)-183	172	219.45	29.598
mogeaSS-(005)-183	172	216.76	24.543
Valid N (listwise)	172		




mogeaWriting(002)-167
300
275
250
225
200
175
2.75
3.00
3.25
3.50
3.75
4.00
stage2CumGpa


mogea-Math (003)-183
300
250
200
150
100
50
0
2.75
3.00
3.25
3.50
3.75
4.00
stage2CumGpa


mogeaScience-(004)-183
300
250
200
150
100
50
0
2.75
3.00
3.25
3.50
3.75
4.00
stage2CumGpa



Correlations

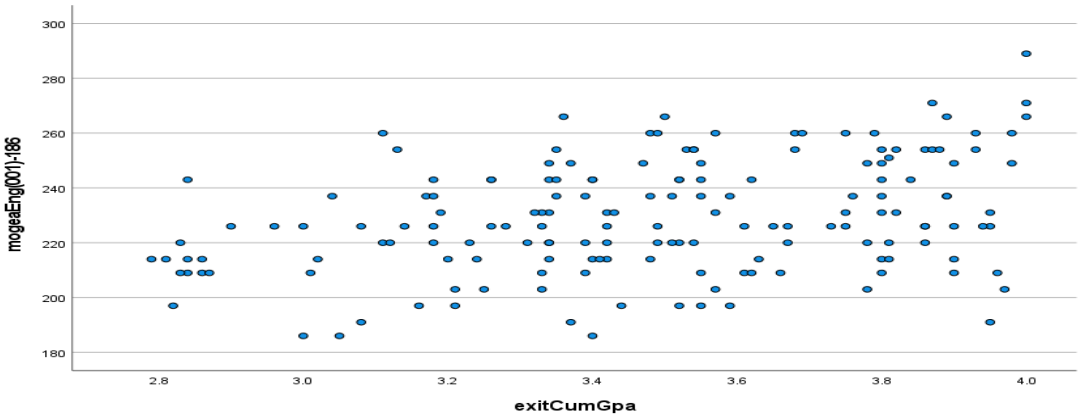
		stage2CumGpa	mogeaEng(001)-186	mogeaWriting(002)-167	mogea-Math (003)-183	mogeaScience-(004)-183	mogeaSS-(005)-183
stage2CumGpa	Pearson Correlation	1	.347**	.310**	.321**	.313**	.174*
	Sig. (1-tailed)		<.001	<.001	<.001	<.001	.011
	N	172	172	172	172	172	172
mogeaEng(001)-186	Pearson Correlation	.347**	1	.351**	.238**	.429**	.424**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001	<.001
	N	172	172	172	172	172	172
mogeaWriting(002)-167	Pearson Correlation	.310**	.351**	1	.292**	.301**	.236**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001	<.001
	N	172	172	172	172	172	172
mogea-Math (003)-183	Pearson Correlation	.321**	.238**	.292**	1	.414**	.342**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001	<.001
	N	172	172	172	172	172	172
mogeaScience-(004)-183	Pearson Correlation	.313**	.429**	.301**	.414**	1	.404**
	Sig. (1-tailed)	<.001	<.001	<.001	<.001		<.001
	N	172	172	172	172	172	172
mogeaSS-(005)-183	Pearson Correlation	.174*	.424**	.236**	.342**	.404**	1
	Sig. (1-tailed)	.011	<.001	<.001	<.001	<.001	
	N	172	172	172	172	172	172

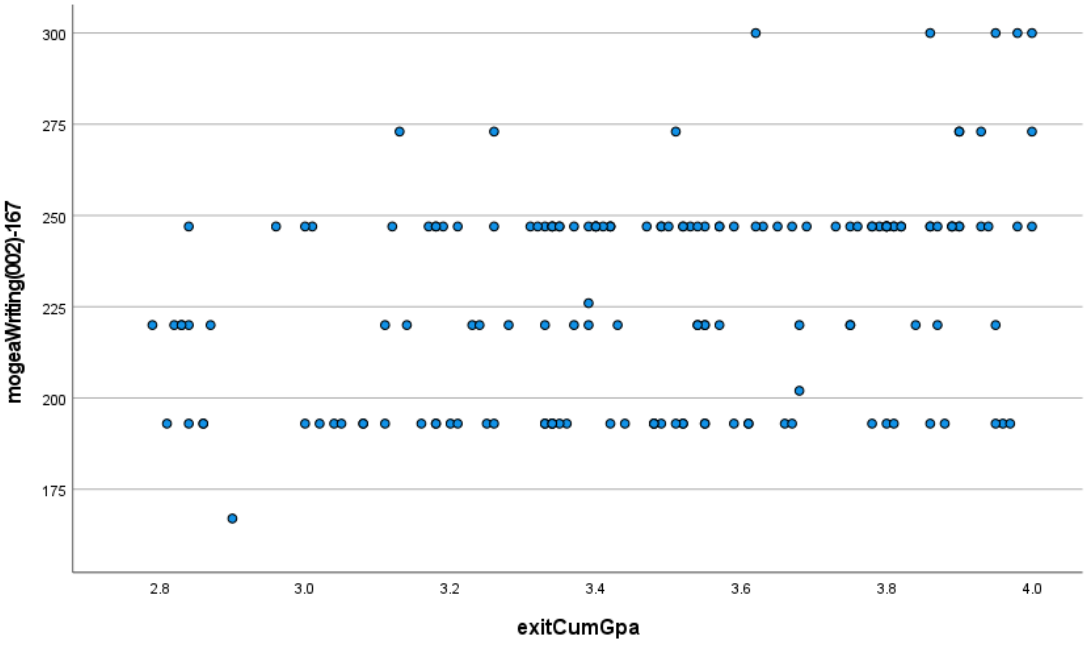
**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

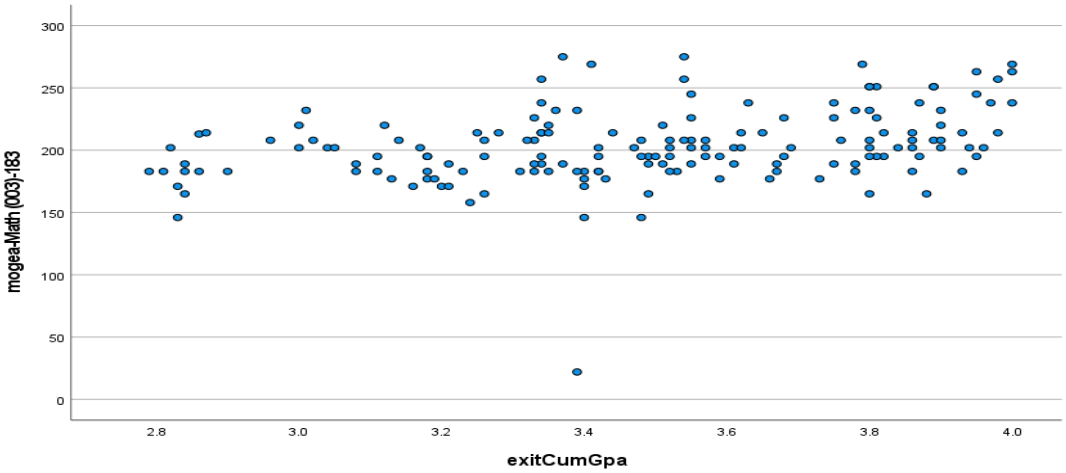
$H_0$4.3.

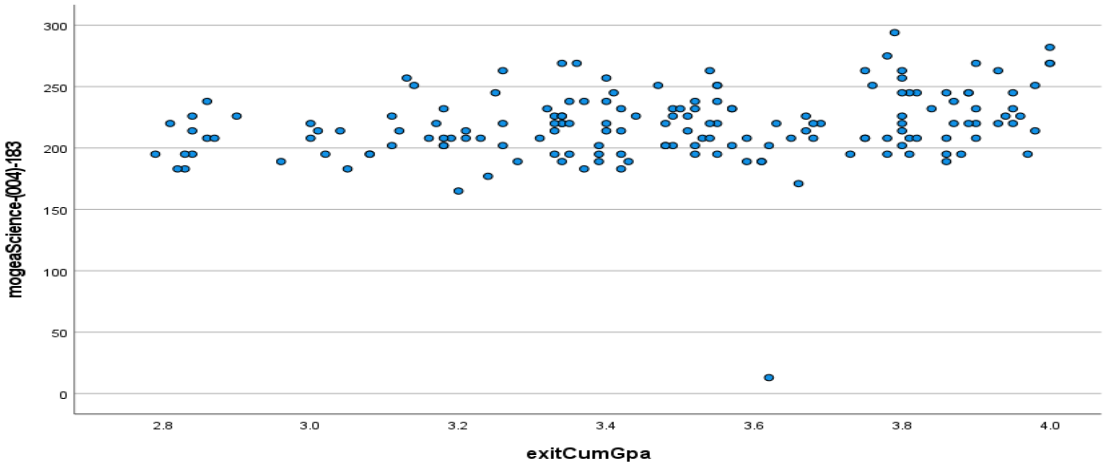
Descriptive Statistics

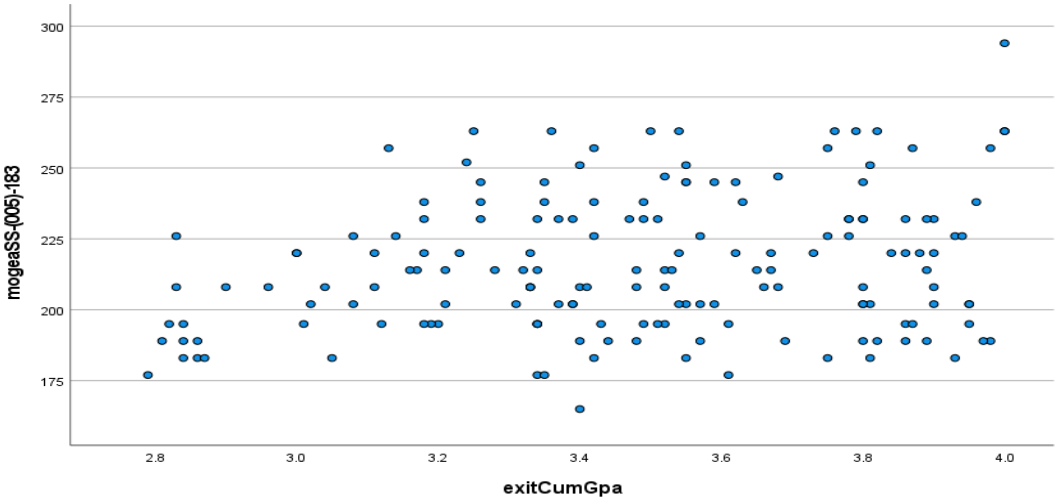
	N	Mean	Std. Deviation
exitCumGpa	164	3.48	.323
mogeaEng(001)-186	164	229.23	20.568
mogeaWriting(002)-167	164	228.42	28.551
mogea-Math (003)-183	164	203.15	30.111
mogeaScience-(004)-183	164	218.18	29.000
mogeaSS-(005)-183	164	216.01	24.336
Valid N (listwise)	164		


mogeaEng(001)-186
300
280
260
240
220
200
180
2.8
3.0
3.2
3.4
3.6
3.8
4.0
exitCumGpa


mogeaWriting(002)-167
300
275
250
225
200
175
2.8
3.0
3.2
3.4
3.6
3.8
4.0
exitCumGpa


mogea-Math (003)-183
300
250
200
150
100
50
0
2.8
3.0
3.2
3.4
3.6
3.8
4.0
exitCumGpa





Correlations

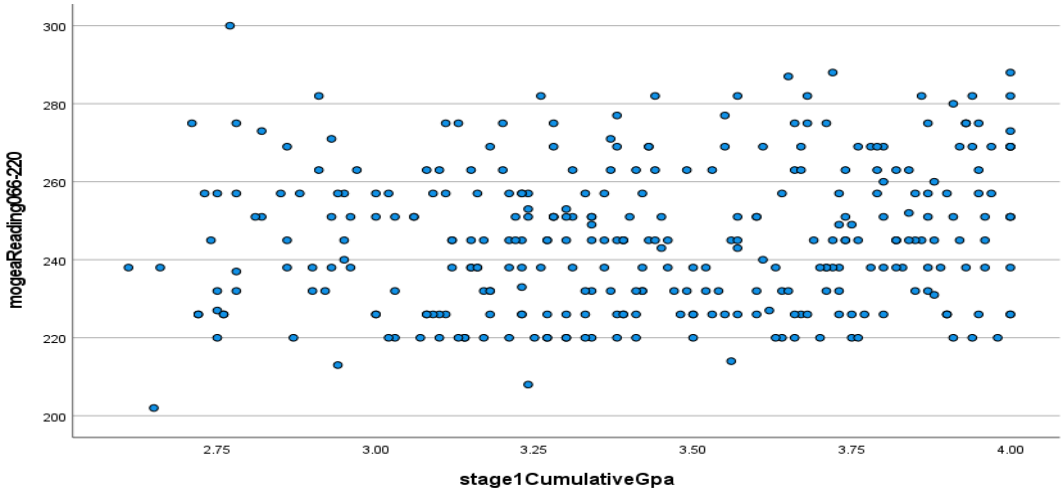
		exitCumGpa	mogeaEng(001)-186	mogeaWriting(002)-167	mogea-Math (003)-183	mogeaScience-(004)-183	mogeaSS-(005)-183
exitCumGpa	Pearson Correlation	1	.358**	.343**	.336**	.242**	.235**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001	.001
	N	164	164	164	164	164	164
mogeaEng(001)-186	Pearson Correlation	.358**	1	.339**	.198**	.426**	.441**
	Sig. (1-tailed)	<.001		<.001	.006	<.001	<.001
	N	164	164	164	164	164	164
mogeaWriting(002)-167	Pearson Correlation	.343**	.339**	1	.276**	.291**	.237**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001	.001
	N	164	164	164	164	164	164
mogea-Math (003)-183	Pearson Correlation	.336**	.198**	.276**	1	.374**	.309**
	Sig. (1-tailed)	<.001	.006	<.001		<.001	<.001
	N	164	164	164	164	164	164
mogeaScience-(004)-183	Pearson Correlation	.242**	.426**	.291**	.374**	1	.385**
	Sig. (1-tailed)	<.001	<.001	<.001	<.001		<.001
	N	164	164	164	164	164	164
mogeaSS-(005)-183	Pearson Correlation	.235**	.441**	.237**	.309**	.385**	1
	Sig. (1-tailed)	.001	<.001	.001	<.001	<.001	
	N	164	164	164	164	164	164

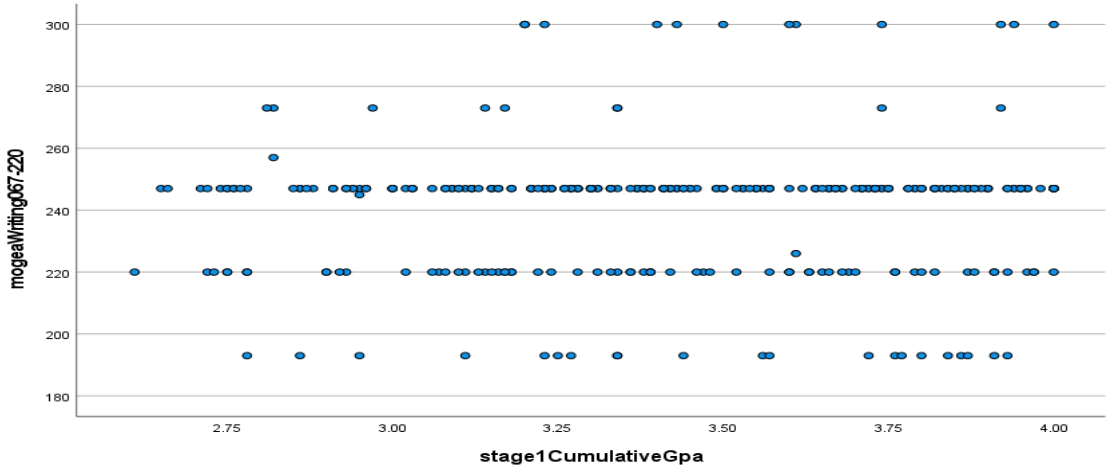
**. Correlation is significant at the 0.01 level (1-tailed).

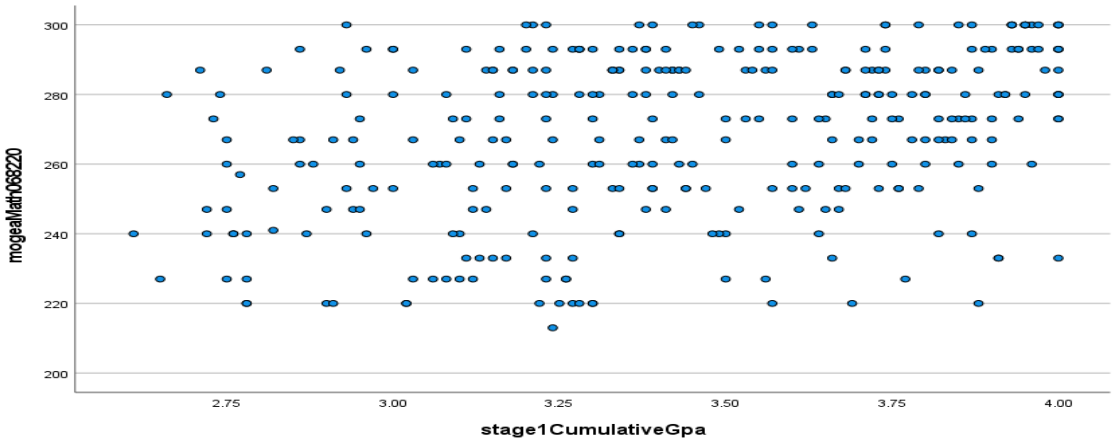
$H_0$4.4.

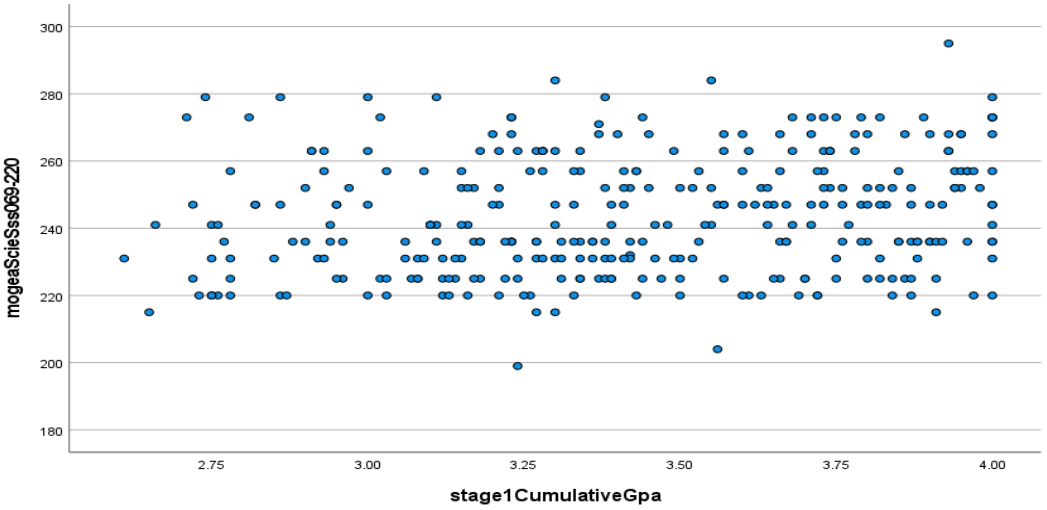
Descriptive Statistics

	N	Mean	Std. Deviation
stage1CumulativeGpa	319	3.43	.366
mogeaReading066-220	319	245.54	18.366
mogeaWriting067-220	319	240.55	20.710
mogeaMath068220	319	268.12	23.420
mogeaScieSss069-220	319	243.66	17.465
Valid N (listwise)	319		









Correlations

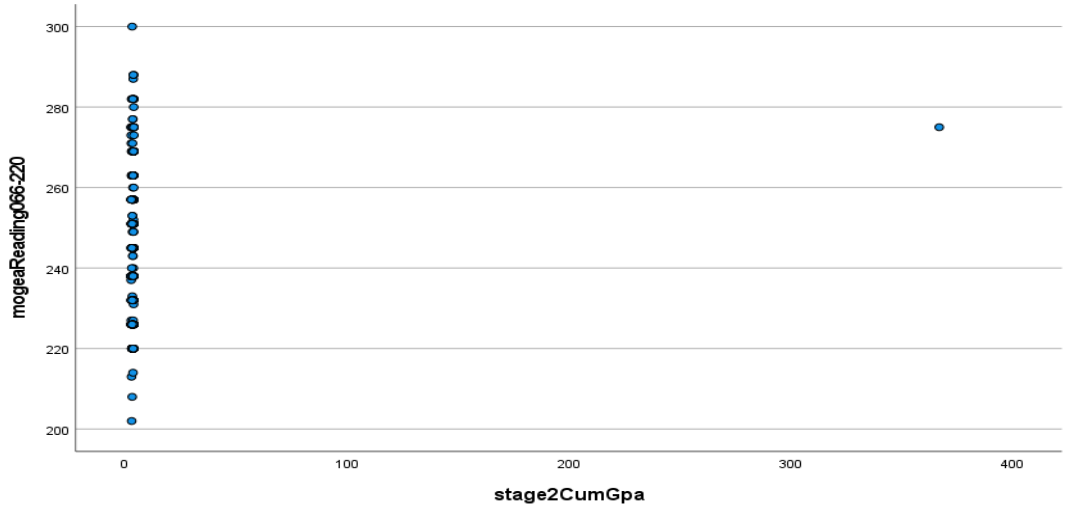
		stage1CumulativeGpa	mogeaReading066-220	mogeaWriting067-220	mogeaMath068220	mogeaScieSss069-220
stage1CumulativeGpa	Pearson Correlation	1	.147**	.030	.344**	.188**
	Sig. (1-tailed)		.004	.296	<.001	<.001
	N	319	319	319	319	319
mogeaReading066-220	Pearson Correlation	.147**	1	.109*	.329**	.470**
	Sig. (1-tailed)	.004		.026	<.001	<.001
	N	319	319	319	319	319
mogeaWriting067-220	Pearson Correlation	.030	.109*	1	.192**	.232**
	Sig. (1-tailed)	.296	.026		<.001	<.001
	N	319	319	319	319	319
mogeaMath068220	Pearson Correlation	.344**	.329**	.192**	1	.496**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	319	319	319	319	319
mogeaScieSss069-220	Pearson Correlation	.188**	.470**	.232**	.496**	1
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	
	N	319	319	319	319	319

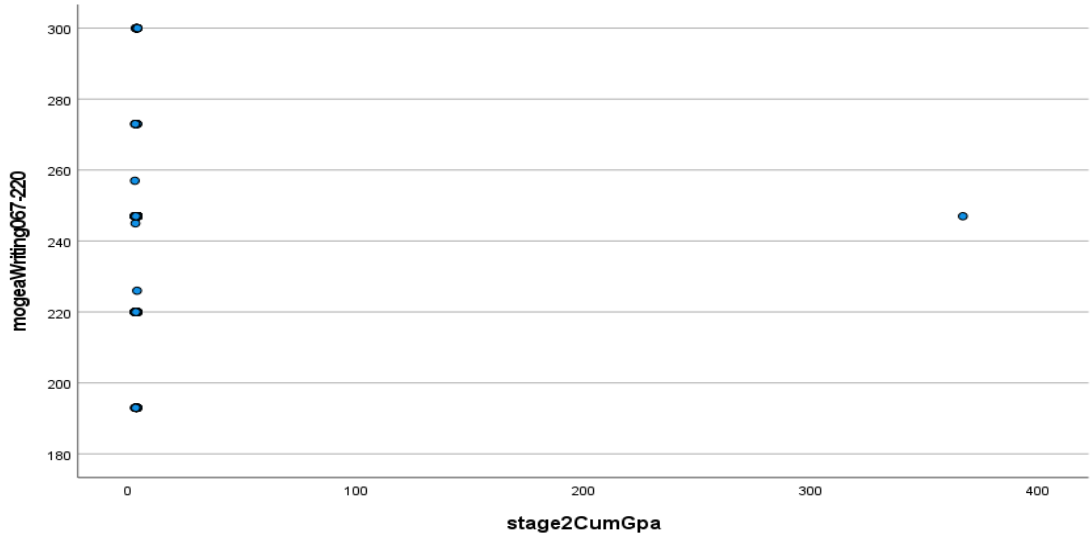
**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

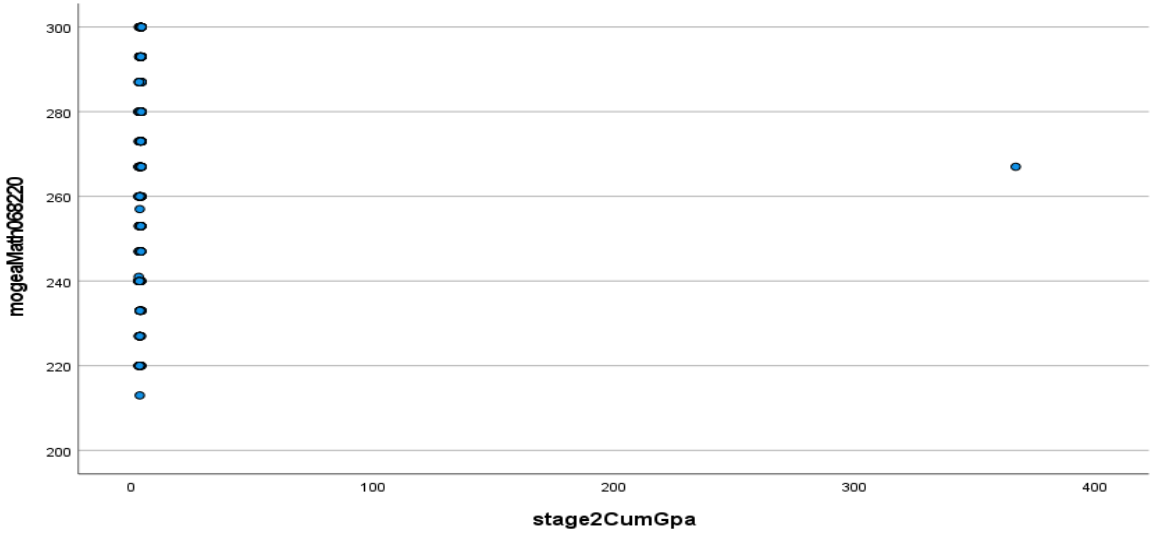
$H_0$4.5.

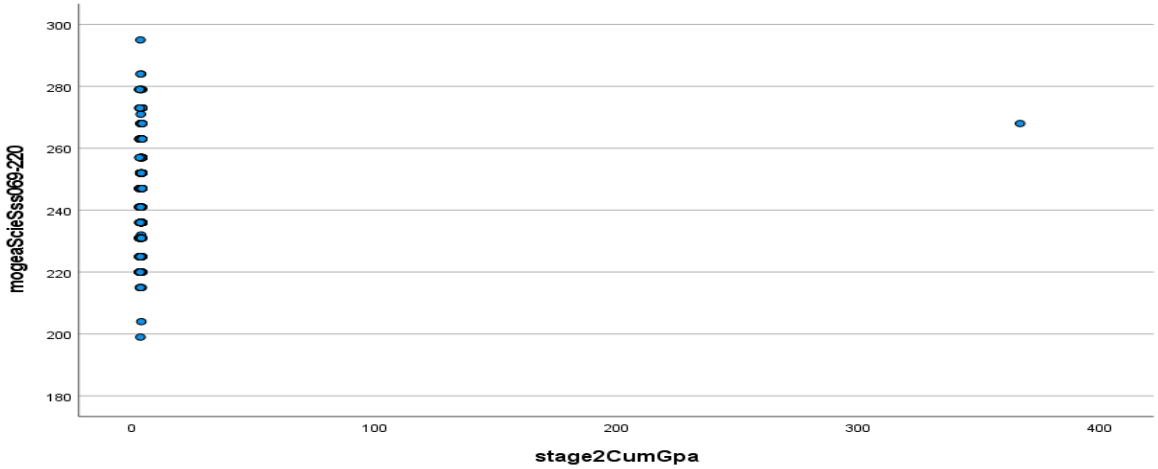
Descriptive Statistics

	N	Mean	Std. Deviation
stage2CumGpa	319	4.63	20.355
mogeaReading066-220	319	245.54	18.366
mogeaWriting067-220	319	240.55	20.710
mogeaMath068220	319	268.12	23.420
mogeaScieSss069-220	319	243.66	17.465
Valid N (listwise)	319		









Correlations

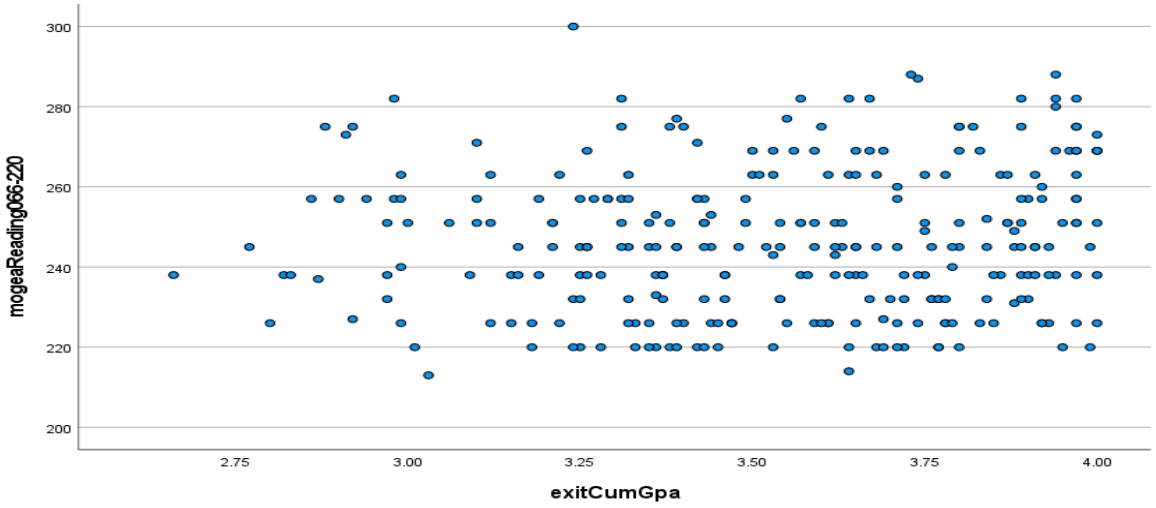
		stage2CumGpa	mogeaReading066-220	mogeaWriting067-220	mogeaMath068220	mogeaScieSss069-220
stage2CumGpa	Pearson Correlation	1	.092	.018	.003	.081
	Sig. (1-tailed)		.050	.372	.477	.074
	N	319	319	319	319	319
mogeaReading066-220	Pearson Correlation	.092	1	.109*	.329**	.470**
	Sig. (1-tailed)	.050		.026	<.001	<.001
	N	319	319	319	319	319
mogeaWriting067-220	Pearson Correlation	.018	.109*	1	.192**	.232**
	Sig. (1-tailed)	.372	.026		<.001	<.001
	N	319	319	319	319	319
mogeaMath068220	Pearson Correlation	.003	.329**	.192**	1	.496**
	Sig. (1-tailed)	.477	<.001	<.001		<.001
	N	319	319	319	319	319
mogeaScieSss069-220	Pearson Correlation	.081	.470**	.232**	.496**	1
	Sig. (1-tailed)	.074	<.001	<.001	<.001	
	N	319	319	319	319	319

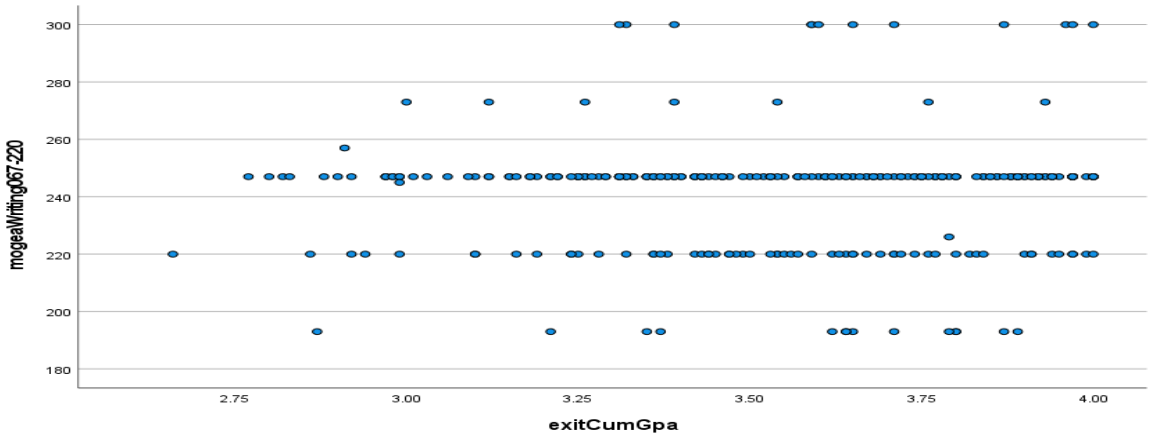
*. Correlation is significant at the 0.05 level (1-tailed).
**. Correlation is significant at the 0.01 level (1-tailed).

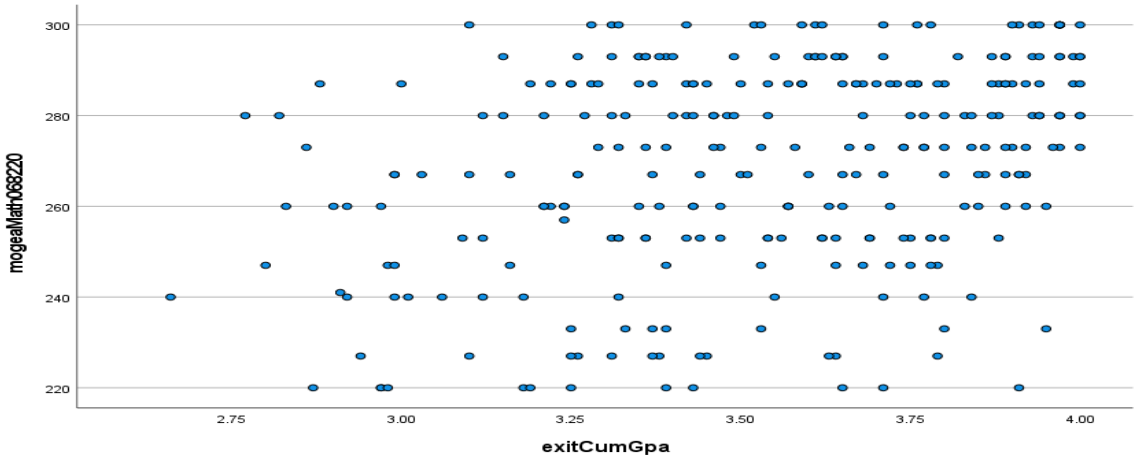
$H_0$4.6.

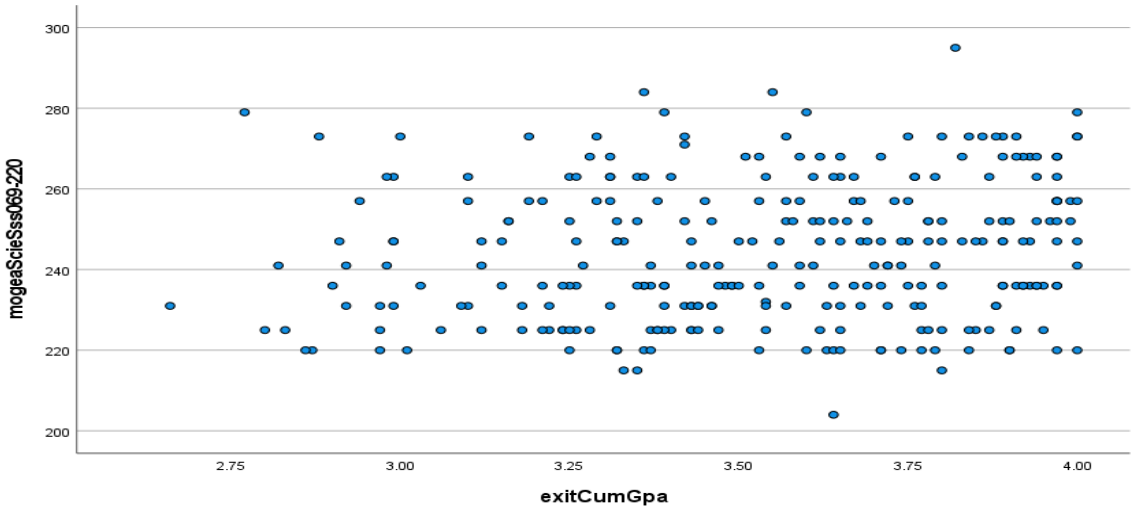
Descriptive Statistics

	N	Mean	Std. Deviation
exitCumGpa	281	3.54	.315
mogeaReading066-220	281	246.31	18.097
mogeaWriting067-220	281	241.31	20.283
mogeaMath068220	281	269.17	22.612
mogeaScieSss069-220	281	244.08	17.255
Valid N (listwise)	281		









Correlations

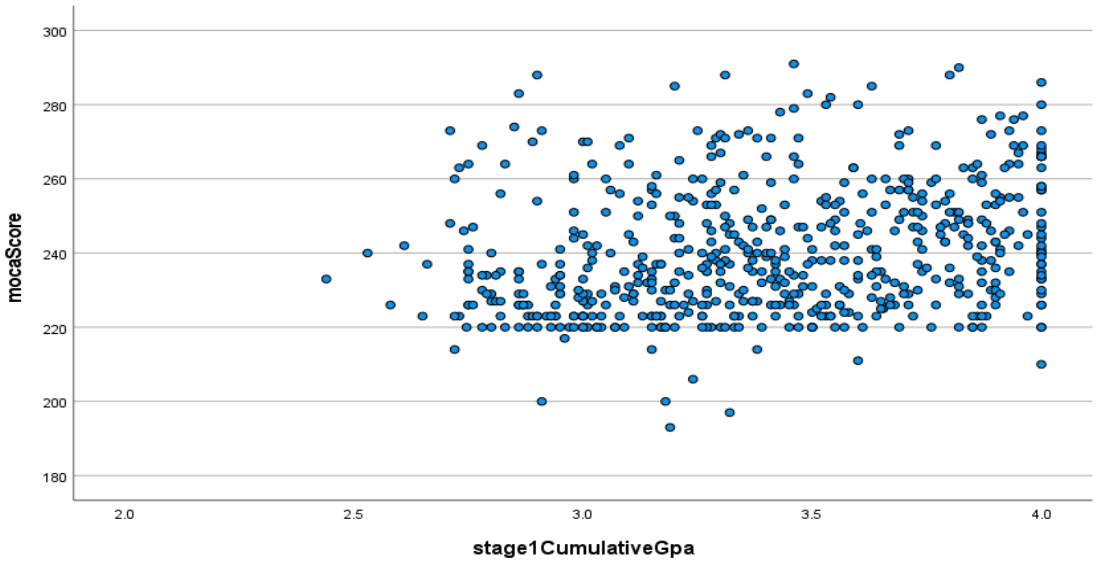
		exitCumGpa	mogeaReading066-220	mogeaWriting067-220	mogeaMath068220	mogeaScieSss069-220
exitCumGpa	Pearson Correlation	1	.093	.021	.335**	.152**
	Sig. (1-tailed)		.060	.365	<.001	.005
	N	281	281	281	281	281
mogeaReading066-220	Pearson Correlation	.093	1	.092	.254**	.453**
	Sig. (1-tailed)	.060		.063	<.001	<.001
	N	281	281	281	281	281
mogeaWriting067-220	Pearson Correlation	.021	.092	1	.185**	.264**
	Sig. (1-tailed)	.365	.063		<.001	<.001
	N	281	281	281	281	281
mogeaMath068220	Pearson Correlation	.335**	.254**	.185**	1	.476**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	281	281	281	281	281
mogeaScieSss069-220	Pearson Correlation	.152**	.453**	.264**	.476**	1
	Sig. (1-tailed)	.005	<.001	<.001	<.001	
	N	281	281	281	281	281

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$4.7.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1CumulativeGpa	591	3.40	.375
mocaScore	591	240.25	17.151
Valid N (listwise)	591		



Correlations

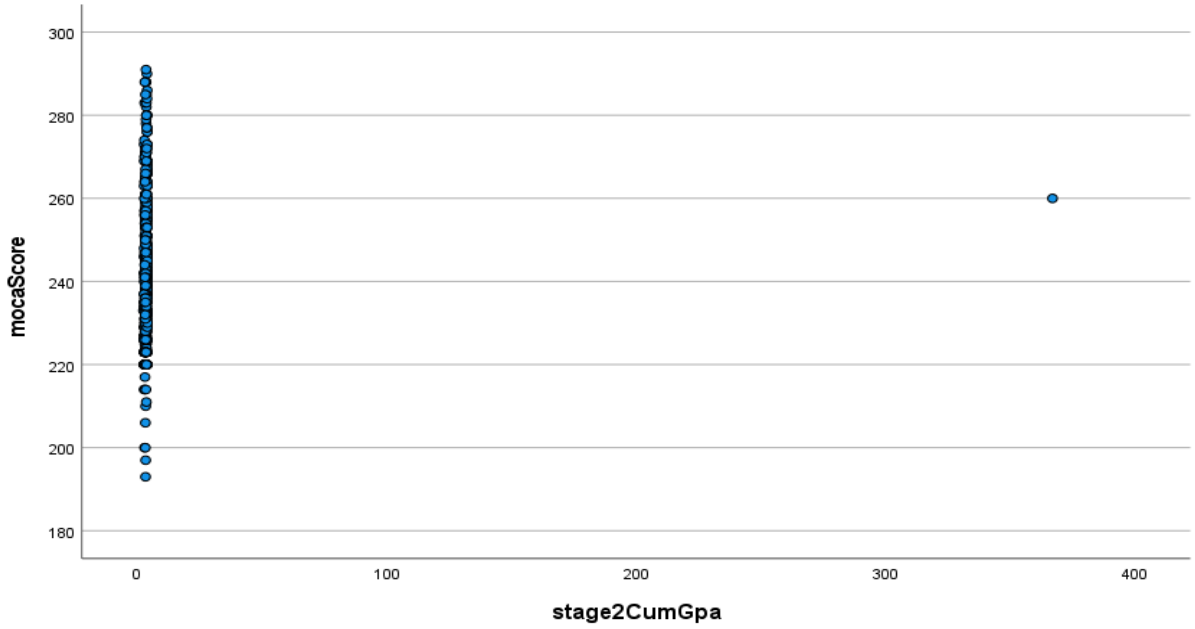
		stage1CumulativeGpa	mocaScore
stage1CumulativeGpa	Pearson Correlation	1	.252**
	Sig. (1-tailed)		<.001
	N	591	591
mocaScore	Pearson Correlation	.252**	1
	Sig. (1-tailed)	<.001	
	N	591	591

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$4.8.

Descriptive Statistics

	N	Mean	Std. Deviation
stage2CumGpa	598	4.03	14.872
mocaScore	598	240.24	17.201
Valid N (listwise)	598		



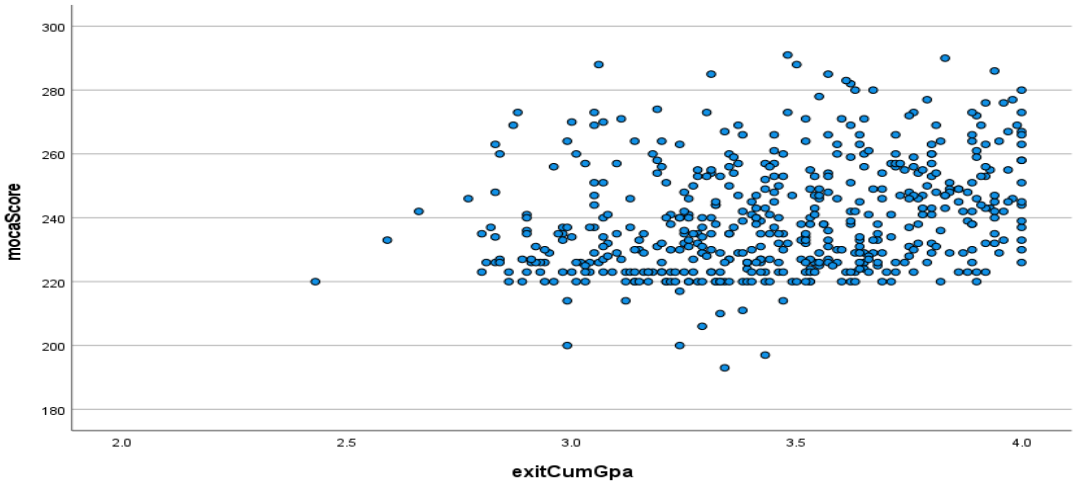
Correlations

		stage2CumGpa	mocaScore
stage2CumGpa	Pearson Correlation	1	.053
	Sig. (1-tailed)		.097
	N	598	598
mocaScore	Pearson Correlation	.053	1
	Sig. (1-tailed)	.097	
	N	598	598

$H_0$4.9.

Descriptive Statistics

	N	Mean	Std. Deviation
exitCumGpa	511	3.45	.321
mocaScore	511	239.87	17.147
Valid N (listwise)	511		



Correlations

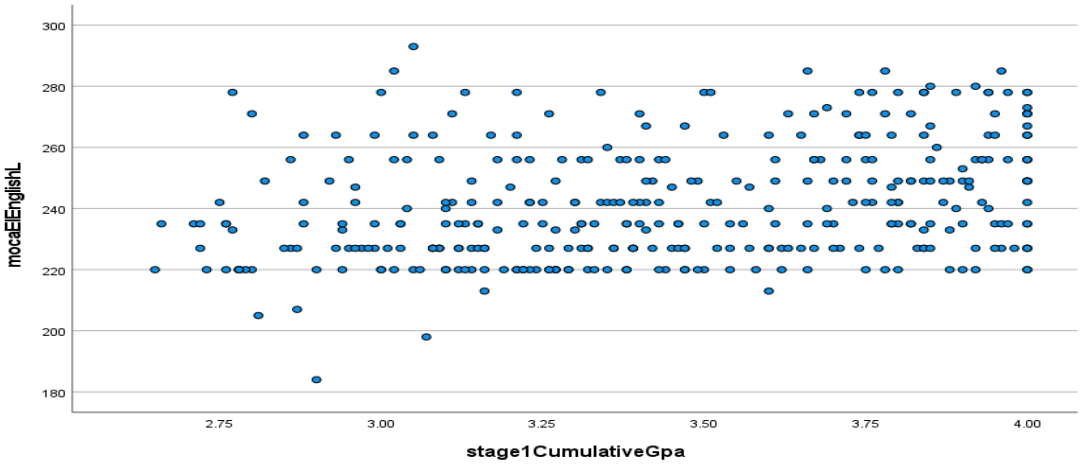
		exitCumGpa	mocaScore
exitCumGpa	Pearson Correlation	1	.277**
	Sig. (1-tailed)		<.001
	N	511	511
mocaScore	Pearson Correlation	.277**	1
	Sig. (1-tailed)	<.001	
	N	511	511

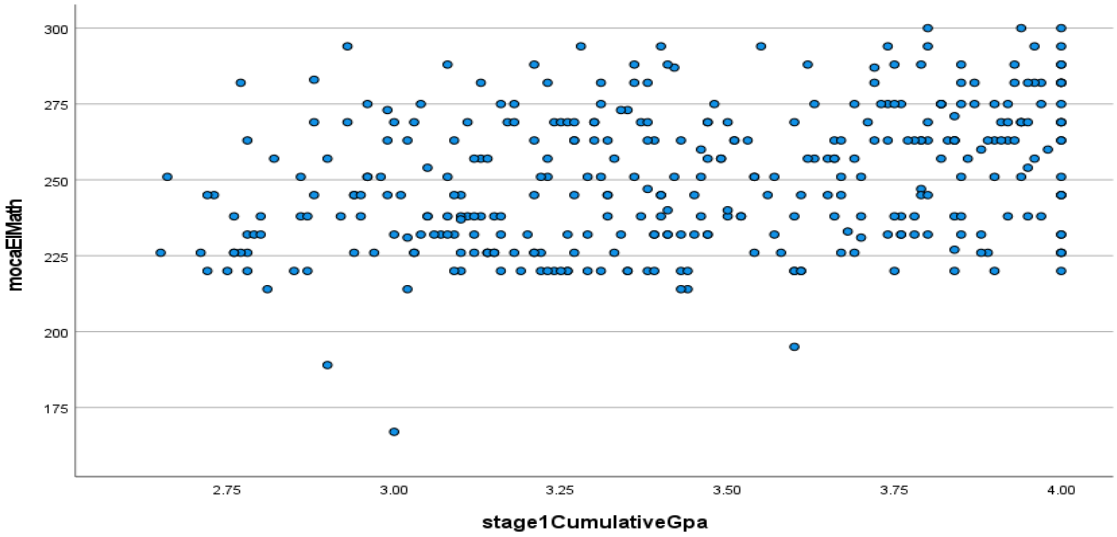
**. Correlation is significant at the 0.01 level (1-tailed).

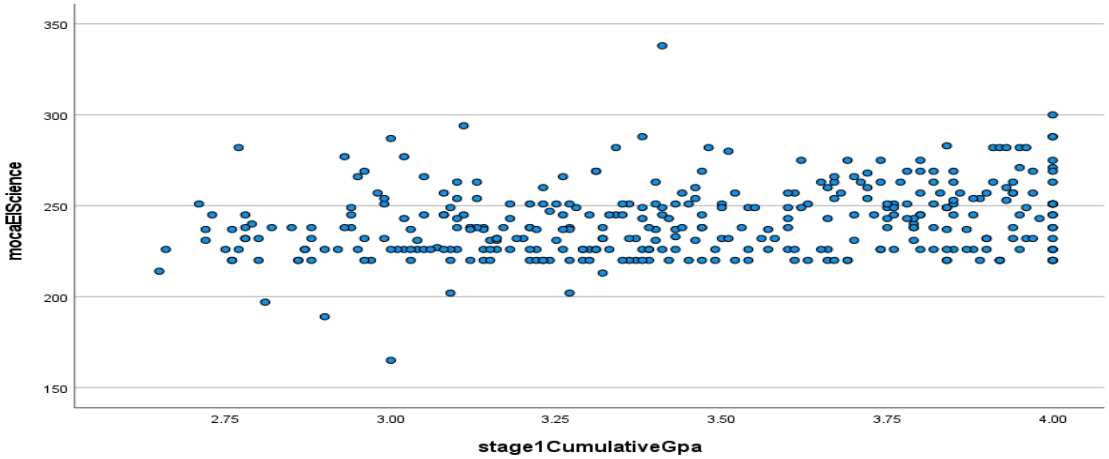
$H_0$4.10.

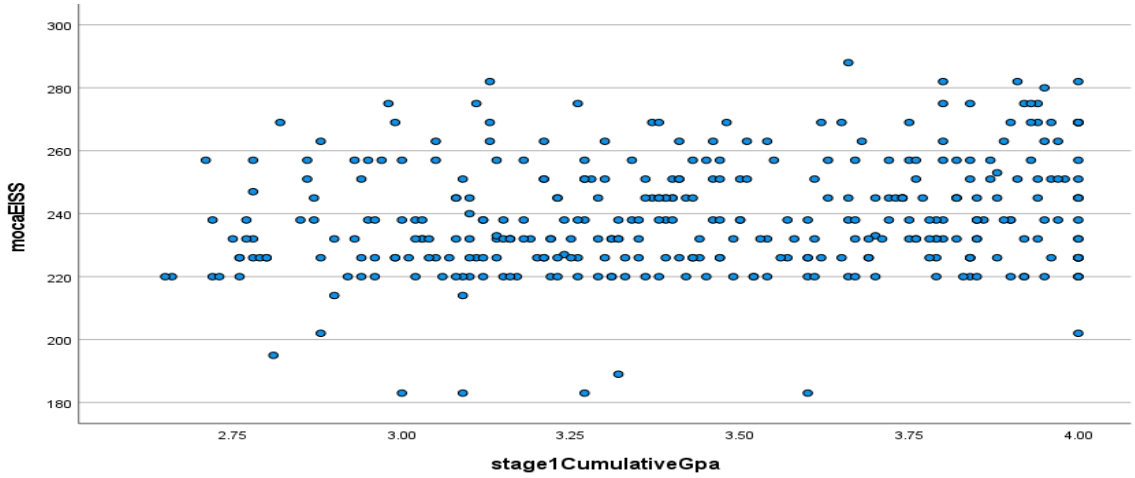
Descriptive Statistics

	N	Mean	Std. Deviation
stage1CumulativeGpa	350	3.44	.375
mocaElEnglishL	350	241.23	18.886
mocaElMath	350	250.43	22.522
mocaElScience	350	241.34	19.498
mocaElSS	350	239.05	17.874
Valid N (listwise)	350		


mocaEiEnglishL
300
280
260
240
220
200
180
2.75
3.00
3.25
3.50
3.75
4.00
stage1CumulativeGpa


mocaEiMath
300
275
250
225
200
175
2.75
3.00
3.25
3.50
3.75
4.00
stage1CumulativeGpa


mocaEiScience
350
300
250
200
150
2.75
3.00
3.25
3.50
3.75
4.00
stage1CumulativeGpa



Correlations

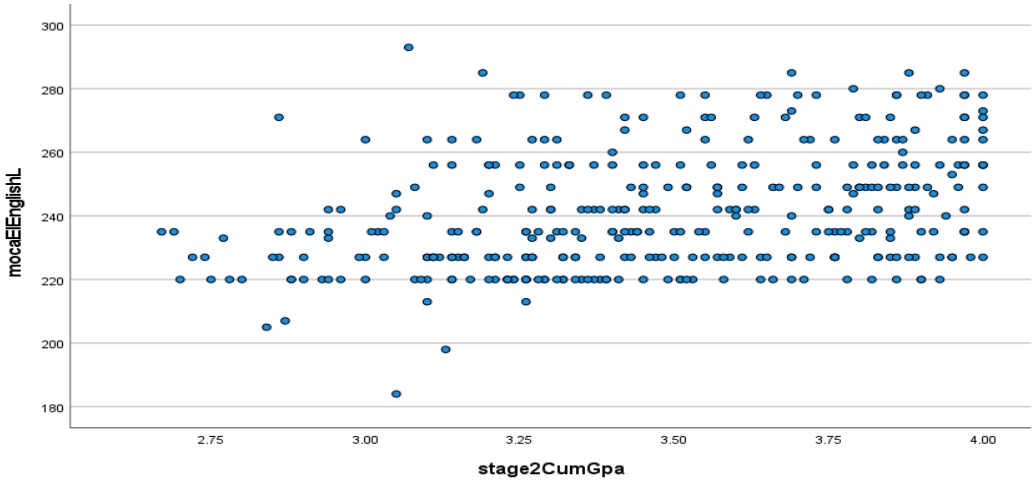
		stage1CumulativeGpa	mocaElEnglishL	mocaElMath	mocaElScience	mocaElSS
stage1CumulativeGpa	Pearson Correlation	1	.319**	.329**	.274**	.226**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001
	N	350	350	350	350	350
mocaElEnglishL	Pearson Correlation	.319**	1	.431**	.492**	.390**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001
	N	350	350	350	350	350
mocaElMath	Pearson Correlation	.329**	.431**	1	.492**	.463**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001
	N	350	350	350	350	350
mocaElScience	Pearson Correlation	.274**	.492**	.492**	1	.558**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	350	350	350	350	350
mocaElSS	Pearson Correlation	.226**	.390**	.463**	.558**	1
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	
	N	350	350	350	350	350

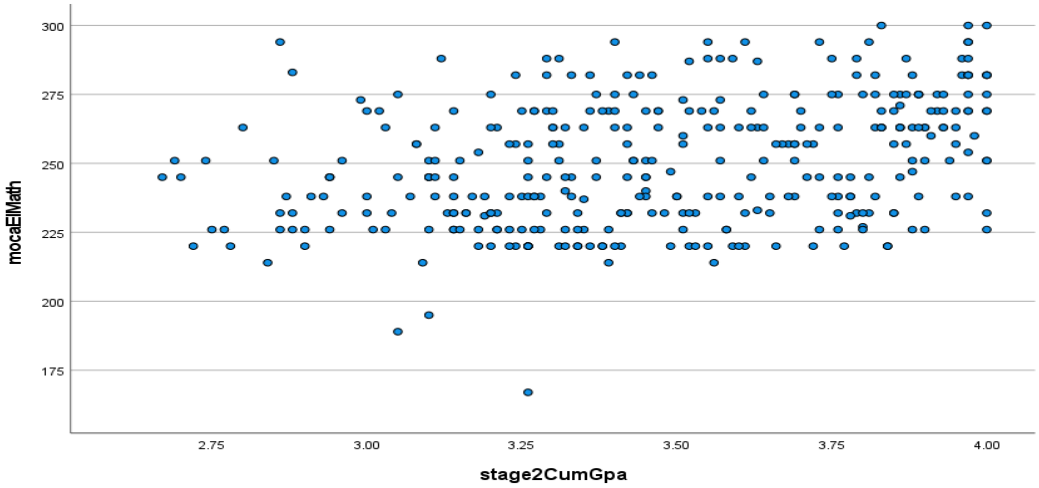
**. Correlation is significant at the 0.01 level (1-tailed).

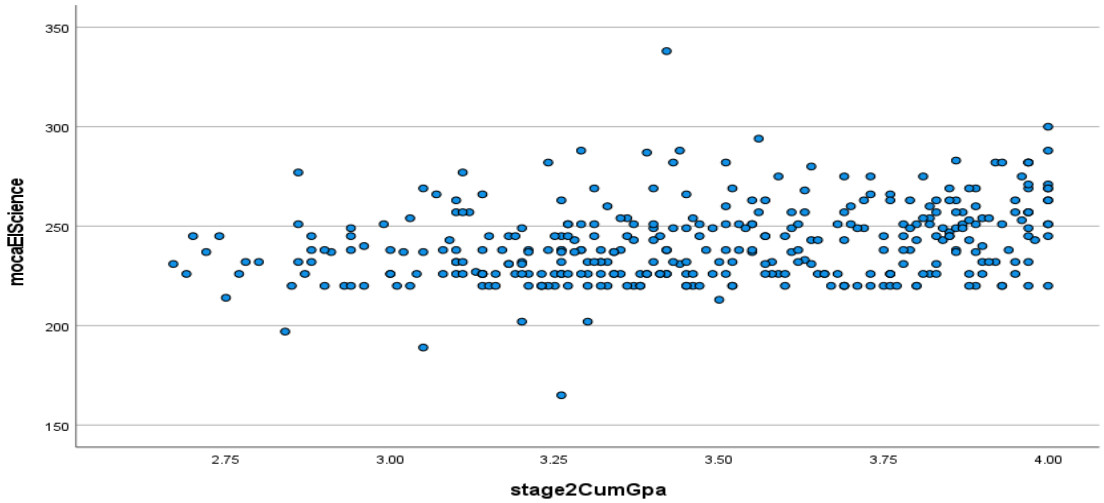
$H_0$4.11.

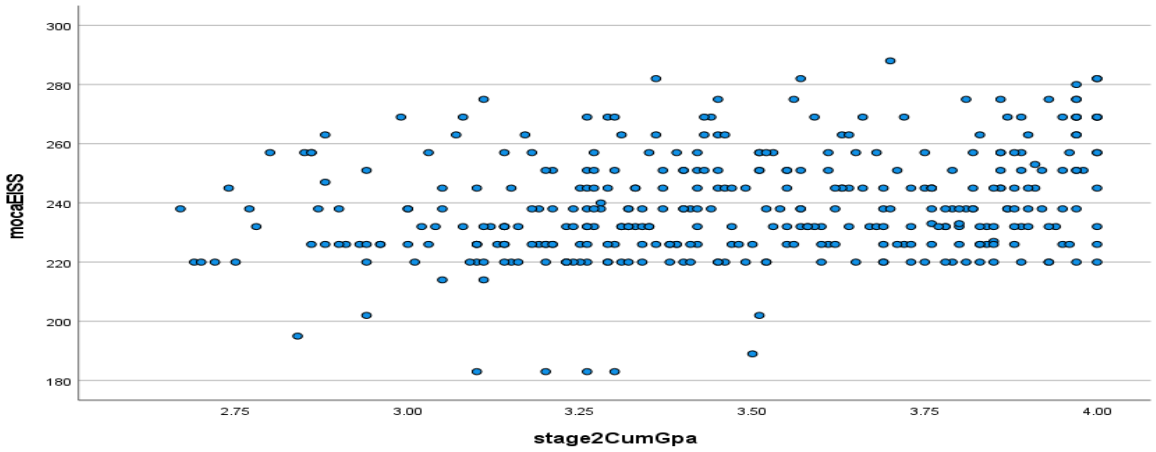
Descriptive Statistics

	N	Mean	Std. Deviation
stage2CumGpa	352	3.48	.336
mocaElEnglishL	352	241.23	18.839
mocaElMath	352	250.31	22.526
mocaElScience	352	241.29	19.455
mocaElSS	352	238.96	17.866
Valid N (listwise)	352		


mocaElEnglishL
300
280
260
240
220
200
180
2.75
3.00
3.25
3.50
3.75
4.00
stage2CumGpa


mocaElMath
300
275
250
225
200
175
2.75
3.00
3.25
3.50
3.75
4.00
stage2CumGpa


mocaElScience
350
300
250
200
150
2.75
3.00
3.25
3.50
3.75
4.00
stage2CumGpa



Correlations

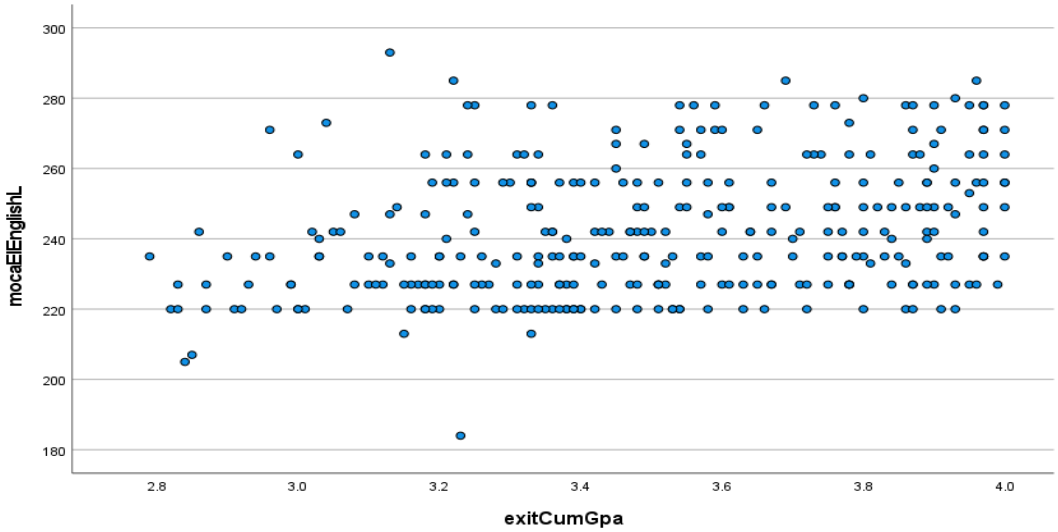
		stage2CumGpa	mocaElEnglishL	mocaElMath	mocaElScience	mocaElSS
stage2CumGpa	Pearson Correlation	1	.366**	.355**	.302**	.262**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001
	N	352	352	352	352	352
mocaElEnglishL	Pearson Correlation	.366**	1	.429**	.492**	.388**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001
	N	352	352	352	352	352
mocaElMath	Pearson Correlation	.355**	.429**	1	.492**	.466**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001
	N	352	352	352	352	352
mocaElScience	Pearson Correlation	.302**	.492**	.492**	1	.558**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	352	352	352	352	352
mocaElSS	Pearson Correlation	.262**	.388**	.466**	.558**	1
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	
	N	352	352	352	352	352

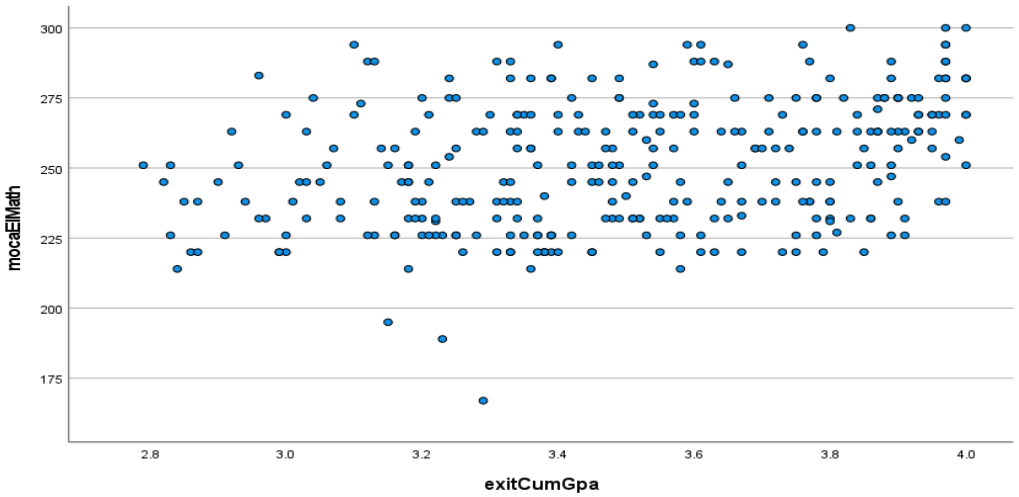
**. Correlation is significant at the 0.01 level (1-tailed).

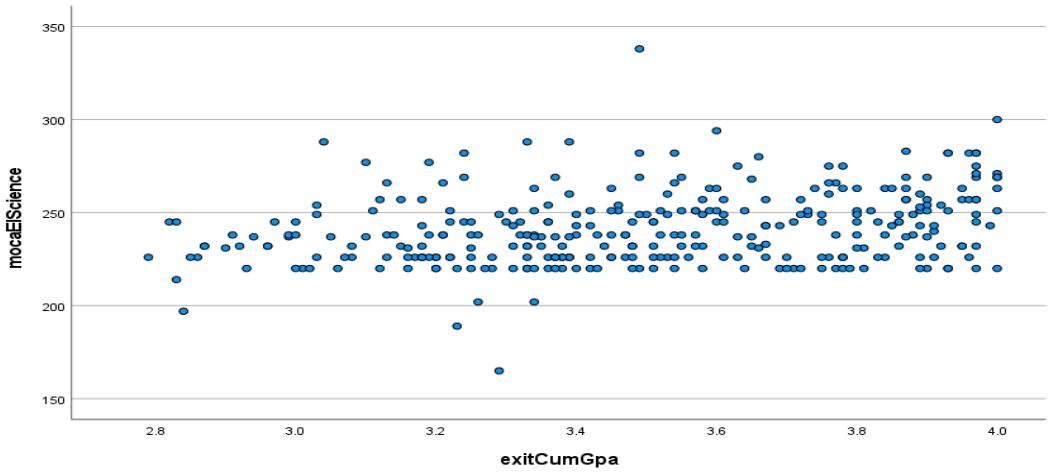
$H_0$4.12.

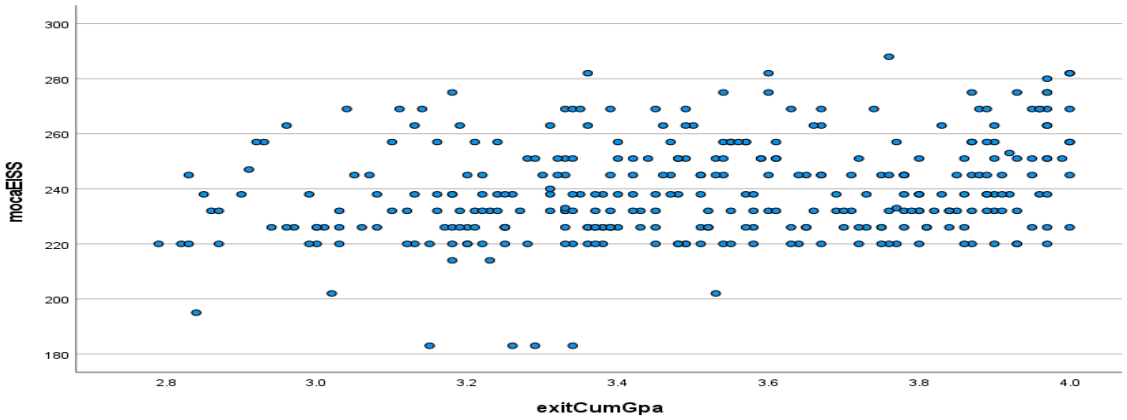
Descriptive Statistics

	N	Mean	Std. Deviation
exitCumGpa	320	3.50	.312
mocaElEnglishL	320	241.93	18.689
mocaElMath	320	251.08	22.550
mocaElScience	320	241.32	19.616
mocaElSS	320	239.33	17.993
Valid N (listwise)	320		


mocaElEnglishL
300
280
260
240
220
200
180
2.8
3.0
3.2
3.4
3.6
3.8
4.0
exitCumGpa


mocaElMath
300
275
250
225
200
175
2.8
3.0
3.2
3.4
3.6
3.8
4.0
exitCumGpa


mocaElScience
350
300
250
200
150
2.8
3.0
3.2
3.4
3.6
3.8
4.0
exitCumGpa



Correlations

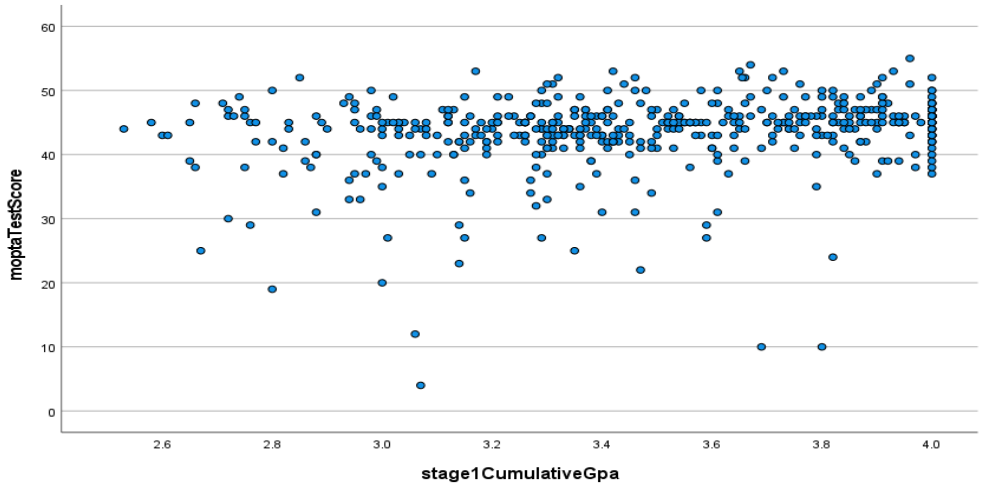
		exitCumGpa	mocaElEnglishL	mocaElMath	mocaElScience	mocaElSS
exitCumGpa	Pearson Correlation	1	.316**	.330**	.293**	.265**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001
	N	320	320	320	320	320
mocaElEnglishL	Pearson Correlation	.316**	1	.411**	.478**	.393**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001
	N	320	320	320	320	320
mocaElMath	Pearson Correlation	.330**	.411**	1	.477**	.461**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001
	N	320	320	320	320	320
mocaElScience	Pearson Correlation	.293**	.478**	.477**	1	.553**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	320	320	320	320	320
mocaElSS	Pearson Correlation	.265**	.393**	.461**	.553**	1
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	
	N	320	320	320	320	320

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$4.13.

Descriptive Statistics

	N	Mean	Std. Deviation
stage1CumulativeGpa	481	3.46	.371
moptaTestScore	481	43.40	5.964
Valid N (listwise)	481		



Correlations

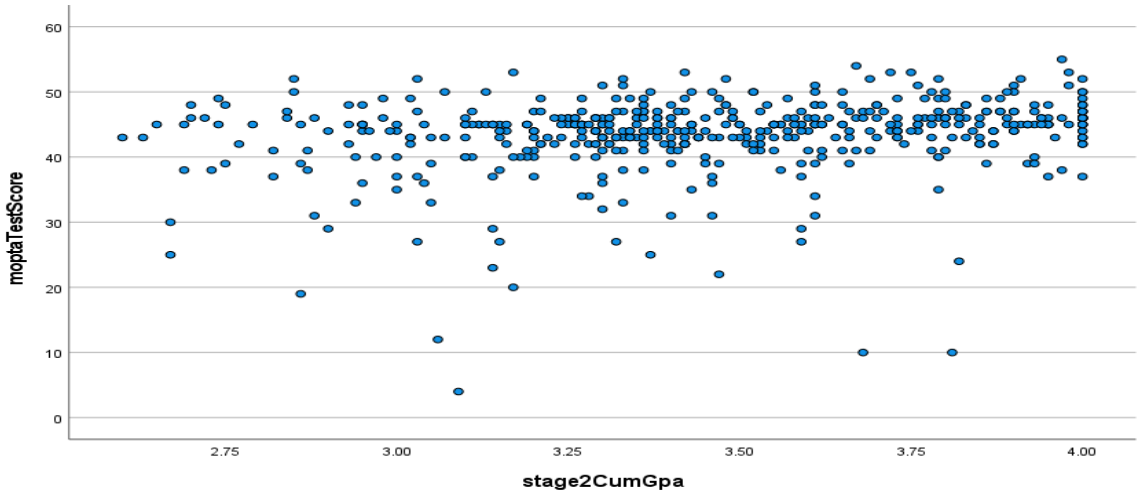
		stage1CumulativeGpa	moptaTestScore
stage1CumulativeGpa	Pearson Correlation	1	.217**
	Sig. (1-tailed)		<.001
	N	481	481
moptaTestScore	Pearson Correlation	.217**	1
	Sig. (1-tailed)	<.001	
	N	481	481

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$4.14.

Descriptive Statistics

	N	Mean	Std. Deviation
stage2CumGpa	483	3.45	.337
moptaTestScore	483	43.43	5.966
Valid N (listwise)	483		



Correlations

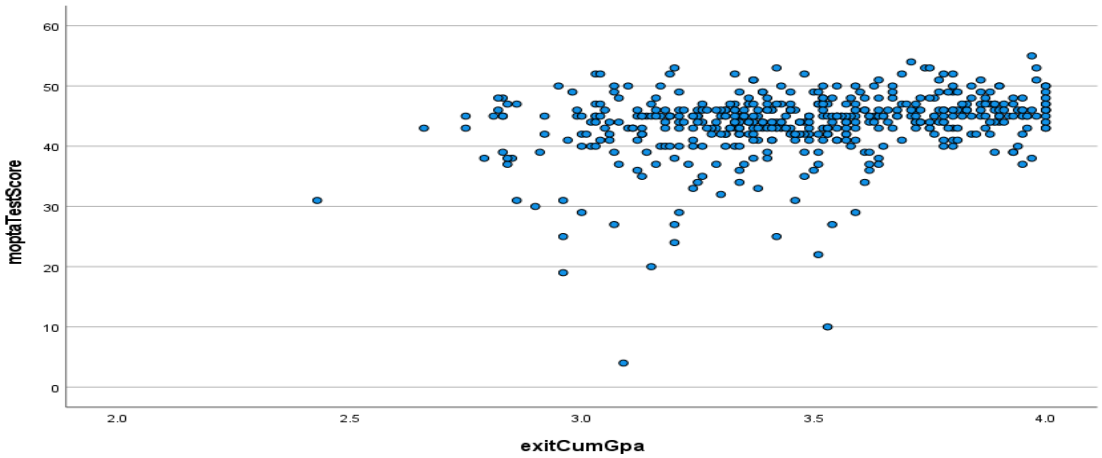
		stage2CumGpa	moptaTestScore
stage2CumGpa	Pearson Correlation	1	.215**
	Sig. (1-tailed)		<.001
	N	483	483
moptaTestScore	Pearson Correlation	.215**	1
	Sig. (1-tailed)	<.001	
	N	483	483

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0$4.15.

Descriptive Statistics

	N	Mean	Std. Deviation
exitCumGpa	477	3.47	.309
moptaTestScore	477	43.66	5.467
Valid N (listwise)	477		



Correlations

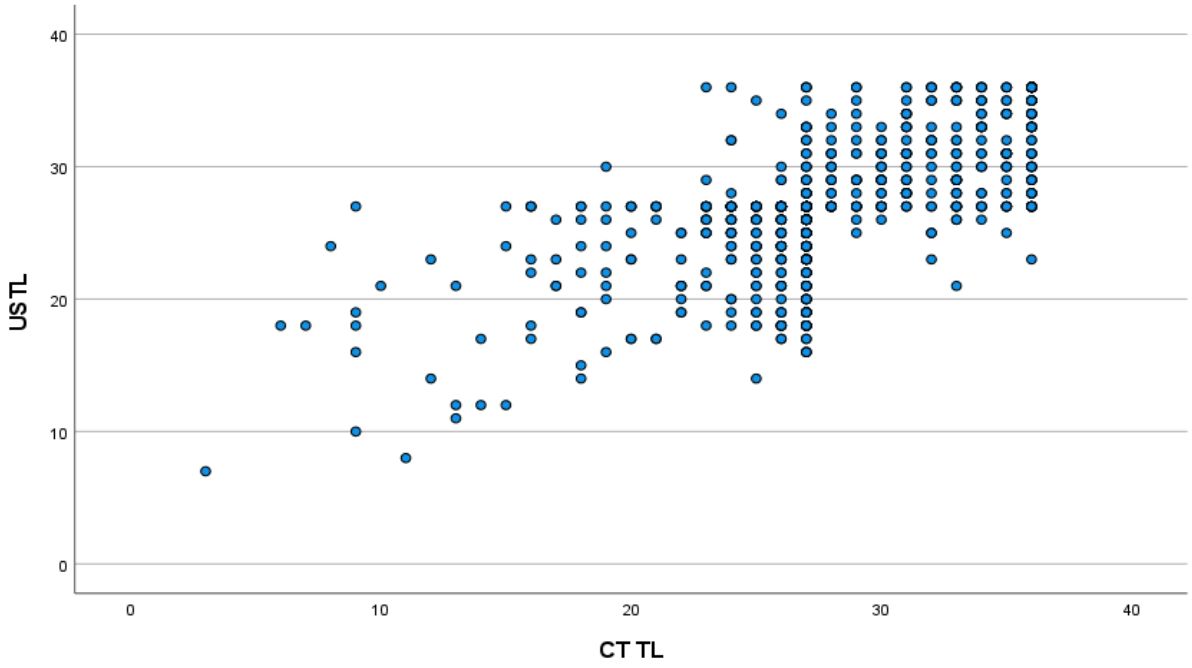
		exitCumGpa	moptaTestScore
exitCumGpa	Pearson Correlation	1	.262**
	Sig. (1-tailed)		<.001
	N	477	477
moptaTestScore	Pearson Correlation	.262**	1
	Sig. (1-tailed)	<.001	
	N	477	477

**. Correlation is significant at the 0.01 level (1-tailed).

$H_0 5$

Descriptive Statistics

	N	Mean	Std. Deviation
CT TL	871	27.84	5.058
US TL	874	27.10	4.712
Valid N (listwise)	871		



Correlations

		CT TL	US TL
CT TL	Pearson Correlation	1	.676**
	Sig. (1-tailed)		<.001
	N	871	871
US TL	Pearson Correlation	.676**	1
	Sig. (1-tailed)	<.001	
	N	871	874

**. Correlation is significant at the 0.01 level (1-tailed).

Profile

I am a creative professional with more than twenty years of experience in Management, Finance, and Human Resources. I possess a strong work ethic and the willingness to learn, with the ability to work both independently and as a productive team member. Despite my considerable background, my enthusiasm and flair for constant growth and self-development have directed me to pursue a Doctorate Degree in Educational Leadership at Lindenwood University in the USA.

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USA

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KHITAM ABDALLA

EDUCATION

Doctor of Education (Ed.D.) in Instructional Leadership with an emphasis in Higher Education Administration

Lindenwood University – Missouri, USA
Will graduate in December 2022

Executive Professional Master in Islamic Finance

General Council for Islamic Banks and Financial Institutions (CIBAFI) – Manama, Bahrain
Graduated in May 2013

Master's in Business Administration (MBA)

German Jordan University/Talal Abu Ghazali College of Business – Amman, Jordan
Graduated in June 2010

Master's Degree in Finance

Amman Arab University for Graduate Studies – Amman, Jordan
Graduated in Aug. 2008

Bachelor's Degree in Banking and Finance

Philadelphia University – Amman, Jordan
Graduated in June 2001

TRAINING & CERTIFICATIONS

- ✓ Business Management Certificate - American Certification Center
- ✓ Project Management Professional (PMP) Training – AMIDEAST Jordan
- ✓ Approved Mentor Certificate – King Abdullah II Center for Excellence
- ✓ Assessor Certificate – King Abdullah II Center for Excellence
- ✓ Governance & Risk Management Training – International Finance Corporation (IFC)
- ✓ Corporate Social Responsibility (CSR) Training – Talal Abu Ghazali College of Business
- ✓ Development of Leadership Skills Training – Jordan Development Center
- ✓ Transformation Management & Integral Business Training – Talal Abu Ghazali College of Business

- ✓ Procurement, Financial Management & Disbursement Training – World Bank in Collaboration with the Ministry of Planning
- ✓ Certified Islamic Banker – CIBAFI/Bahrain
- ✓ Certified Islamic Specialist in Risk Management – CIBAFI/Bahrain

SKILLS

- ✓ Fluent in both English & Arabic, written and spoken.
- ✓ Excellent Computer proficiency with Microsoft Word, PowerPoint, Excel, and Outlook.
- ✓ Policy/procedures development and implementation.
- ✓ All aspects of financial & resource management (especially in the fields of aviation, education and non-profits organizations)

PROFESSIONAL EXPERIENCE

Lecturer of Accounting/Finance/Investment
Sep. 2010 – Aug. 2012
Dar Al Hekma University - Jeddah, Saudi Arabia

Financial Management Specialist
Dec. 2008 – May 2010
Social Protection Enhancement Project (SPEP)
World Bank & Ministry of Social Development - Amman, Jordan

Finance Manager
June 2006 – May 2008
The International Academy – Amman, Jordan

National Officer - Finance/Admin. & HR
Dec. 2004 – Mar. 2006
The International Organization for Migration (IOM) – Amman, Jordan

Finance/Admin. & HR Manager
Dec. 2003 – Nov. 2004
Etihad Airways – Amman, Jordan

Finance/Admin. & HR Supervisor
Oct. 2001 – Dec. 2003
Emirates Airlines - Amman, Jordan

Accounting Analyst
Feb. 1998 - Sep. 2001
Saudi Arabian Airlines – Amman, Jordan

Accounts Receivable/Administrator/Translator
Sep. 1993 - Nov. 1997
Saudi Arabian International Schools (PCS) – Jeddah, Saudi Arabia

Patients Processing Manager
Sep. 1992 – Aug. 1993
Jeddah Institute for Speech & Hearing – Jeddah, Saudi Arabia

Registrar/Translator
Jul. 1984 – Aug. 1992
Saudi Arabian International Schools (Dhahran Academy) – Dhahran, Saudi Arabia

Administrative Assistant
Jul. 1980 – Nov. 1982
Kuwait Airways – Kuwait

Office Manager
June. 1979 – June 1980
Kuwait News Agency – Kuwait