

Level of Attainment and Differences in Program Outcomes Across Various Programs

Bylrose T. Fuertes¹ & Jayvee E. Gamutan²

¹College of Education, Misamis University, Ozamiz City

ARTICLE INFORMATION	ABSTRACT
<p>Article history: Published: May 2026</p> <p>Keywords: Academic Outcomes Education Graduates Program Outcomes Programmatic Results Student Teachers Teaching Competencies University Programs</p>	<p>Program outcomes are statements that define what information students will acquire by the time they graduate. This study examined the level of attainment of program learning outcomes among teacher education students and graduates during the School Year 2023–2024. A quantitative descriptive research design was employed, involving 127 graduates. Data were collected using Performance Indicator Questionnaires administered through Google Forms and analyzed using mean, standard deviation, and one-way analysis of variance (ANOVA). Findings revealed that students demonstrated a very high level of attainment of program learning outcomes across all programs, indicating strong mastery of content, pedagogical competence, assessment strategies, and professional attributes. Moreover, results showed no statistically significant difference in the level of attainment across programs, suggesting consistent quality of education. The study concludes that teacher education programs effectively prepare graduates for the teaching profession. Institutions sustain may its high standards through continuous curriculum enhancement, integration of innovative teaching practices, and ongoing professional development.</p>

1. Introduction

In recent years, there has been an increased emphasis on assessing the efficacy and outcomes of educational and developmental programs. Program outcomes are statements that define what information students will acquire by the time they graduate (Shaikh & Kumar, 2022). While many programs establish success metrics, there is still a lack of expertise about how these indicators are met across different program kinds. The assessment of course outcomes (COs) is the most significant component of outcome-based education (OBE) for improving educational quality.

Understanding program outcomes is vital for program improvement, policy development, and effective resource allocation in higher education. Analyzing program indicators allows stakeholders to identify strengths and weaknesses and implement targeted improvements to enhance program effectiveness. Recent studies emphasize that student outcomes describe what graduates are expected to know, understand, and demonstrate upon completion of their studies, including critical thinking, disciplinary knowledge, and communication skills (Alzubaidi, 2017). Systematic assessment of these outcomes helps institutions align curricular practices with institutional goals and accreditation standards. Furthermore, outcomes-based evaluation contributes to evidence-based decision-making and continuous program enhancement in education.

The existing literature emphasizes the importance of result evaluation in program administration and policy creation. According to studies like "Assessing education program learning outcomes," programs assist graduates in gaining knowledge and abilities, creating 'new' attitudes, and influencing their beliefs about working, all of which have a positive impact on job results. Considering the lack of national standards and formal evaluations of existing graduate preparation programs, the findings of this study could significantly add to field research and enlighten policymakers. This study examines how learning outcomes impact participants, funders, and policymakers in a pre-service education program at a private institution in Lebanon (Fabelico et al., 2020).

Programs were coded based on the presence or absence of four types of strategies: focusing on the teacher, student conduct, social-emotional development, and teacher-student interactions. Focusing on students' social-emotional development appeared to have the greatest impact on the interventions' success, namely on social-emotional outcomes (Korpershoek et al., 2019). The quality of the home environment is widely acknowledged as a significant factor in graduates' development of career and social skills, as well as their subsequent educational achievement. The current study examined the relationships between students' emergent reading competency and social functioning and family characteristics, including socioeconomic status (SES), social risk factors, and home learning variables (Borsoto & Lescano, 2021). However, limited research has systematically evaluated the achievement of program indicators across different programs, limiting our understanding of the elements that influence program effectiveness.

Furthermore, OBE gives a systematic approach where institutional vision, program outcomes, course outcomes, teaching strategies, and assessment practices will fall in place. Researchers have reiterated that OBE strengthens the clarity of educational objectives and creates the intentionality of learning activities and assessments to realize certain outcomes, such as in (Biggs & Tang, 2017). Therefore, within this OBE framework, evaluation of course outcomes is a core mechanism through which programmatic outcomes may be achieved and quantified. If course-level learning outcomes are aligned appropriately with program indicators, then institutions have an assurance that graduates have acquired intended competencies, values, and professional skills, as noted by (Harden, 2022). Therefore, assessing the attainment of COs is not just an academic requirement but a strategic process of strengthening curricular coherence and instructional effectiveness, as Borsoto and Lescano (2021) have noted.

Moreover, the increasing need to ensure accountability in higher education adds to the relevance of evidence-based outcomes assessment. Recent research studies reveal that accrediting agencies and governing bodies are increasingly insisting on institutions to systematically demonstrate assessment of learning outcomes, as well as using learning assessment data to provide efficiency in improvement of overall quality (Commission on Higher Education; (Creswell & Plano Clark, 2019). Successful learning outcome assessment assists in dealing with accreditation requirements, resource allocation, as well as informed decisions about designing curriculum reformation, faculty enhancement, or innovating instruction (Suskie, 2018). Hence, outcomes assessment in a systematic way helps in institutional compliance as well as helps in accomplishing overall academic sustainability (Banta & Blaich, 2021).

Another essential aspect of program outcome assessment is its relevance to a variety of stakeholders, including students, faculty members, administrators, employers, and policymakers. Research indicates that clearly identified outcomes allow students to take responsibility for their learning and thus become much better prepared for professional practice. Faculty members use assessment data to improve instructional methods and enhance teaching effectiveness (O'Neill & Borsoto, 2018). For administrators and policymakers, outcome data serve as an empirical basis for policy development, strategic planning, and resource allocation (Ewell, 2020). Likewise, employers depend on outcome-based indicators in assessing the readiness and employability of graduates, especially in teacher education programs where the competence of the professional directly affects educational quality (Darling-Hammond, 2017).

Although the value of program outcome measurement in higher education has long been realized, institutions still experience difficulties in embracing routine program outcomes measurement and analysis. From the past studies, among the challenges being experienced by institutions in measuring program outcomes may include the lack of standard program measurement tools, insufficient institutional knowledge in program measurement design, or the inability to incorporate program measurement results into institutional decision-making (Banta & Palomba, 2015). Moreover, the previous investigations were only focused on program assessments, hence the need to explore further in the analysis of program outcomes achievement at the higher education institution context. In overcoming the challenges, the method ought to incorporate both measurements and studies to interpret the program results in a more accurate, broader, and comprehensive program analysis (Creswell & Plano Clark, 2019).

This research addresses these needs by investigating the rate at which graduate students at Misamis University achieved program outcomes for the last five years. Longitudinal evaluations for graduate performance and employability have been found to be good traces for institutional effectiveness in providing outcomes-based education, for example, in exerting their duty to provide outcomes-based learning for students and institutions (Borsoto & Lescano, 2021). Through monitoring student performance in school and their work record, student outcomes, and rate and level at which students achieved outcomes, this research provides empirical confirmation in determining the rate at which institutions can successfully play their roles in achieving their own set of objectives. This research therefore aims at providing a practical basis for shifting the focus of institutional success in providing relevant and meaningful outcomes-based education in line with the institutional mission and vision.

The need for productive strategies in evaluating outcomes in teacher education for the increasing importance of such strategies for the improvement and survival of teacher education programs. It highlights the challenges faced during a period of program in the Teacher Education Program over the past five years. To address this gap, it is necessary to examine the possibilities and limitations of various tools for evaluating teachers and teacher education, as well as to describe future directions for assessing beginning teachers' performance in teacher education programs, their practices during the initial years of teaching, and their students' learning outcomes.

The current study explored the graduate student's performance, employment history, and program outcome at Misamis University graduate students for the last 5 years to inform every institution to fulfill its mission through its programs, which constitute courses and learning activities. The significance of this study is to use any tool that will measure the attainment of program outcomes so it can provide a standard to visualize how far an institution has succeeded in delivering what it visualized.

1.1 Theoretical Framework

The theoretical framework of this study provides the conceptual foundation for understanding how program learning outcomes are formulated, achieved, and evaluated in higher education institutions. This paper is anchored from three current theories in education that view how the outcomes of learning are designed, attained, and measured at institutions of higher learning. These theories include the theory of "Bloom's Taxonomy" advanced from recent studies in curriculum development and outcomes (Anderson & Krathwohl, 2023), "Constructivist Theory" developed from contemporary interpretations of innovative theories first developed by Piaget (Piaget & Illeris, 2020), and "Outcome-Based Education" (OBE), which has been reinforced in recent studies in quality assurance in higher institutions (Spady, 2024).

Anderson and Krathwohl's revision to Bloom's Taxonomy of Educational Objectives has proven to be increasingly useful in modern education research. Current research contends that it is as relevant as ever in terms of alignment, learning, or assessment in output-based learning or competency-based education efforts (Vandenreyt, & Krathwohl, 2021).

The taxonomy can be used to facilitate the improvement of higher-order thinking skills because it enables educators to create a way to increase students from a knowledge-transfer stage to a stage where they are able to engage in activities such as evaluation or creativity.

In this context, the use of Bloom's Revised Taxonomy is made to assess the cognitive alignment of the program indicators for different academic programs. The outcome of the academic programs is evaluated to see if it is dealing with the desired higher-order cognitive skills possessed by students in current learning environments. Through the alignment of program indicators with the revised taxonomy, it is possible to assess the levels of rigor in learning outcomes.

Constructivist Theory, originally proposed by Jean Piaget, continues to inform modern educational practices through contemporary interpretations that emphasize active learning, learner autonomy, and reflective thinking. Recent literature highlights that constructivist learning environments promote deeper understanding by encouraging learners to actively engage with content,

collaborate with peers, and reflect on their learning experiences (Li & Kim, 2021). The theory underscores the importance of aligning instructional strategies with learners' cognitive development and prior knowledge to support meaningful learning.

Within the context of this research, the Constructivist Theory is used for its explanatory potential regarding how academic programs support the achievement of program indicators with the use of learner-centered strategies. The research analyses if the program outcome is accomplished by learning experiences in the classroom aimed at active engagement, including reflections and metacognitive learning. Through the analysis of program outcomes, the study determines the effectiveness of learning experiences in assisting learners with the construction of their own program knowledge.

Outcome-Based Education (OBE), developed by William Spady, remains a central framework in contemporary higher education, particularly in quality assurance and accreditation systems. Recent studies emphasize OBE's role in ensuring transparency, accountability, and continuous improvement in academic programs (Borsoto & Lescano, 2021). OBE focuses on clearly defined, measurable learning outcomes that guide curriculum design, instructional strategies, and assessment practices, ensuring that graduates acquire relevant and verifiable competencies.

For this study, the application of OBE is used as a basis in determining the achievement of program indicators in different academic programs. The success or failure in obtaining program outcomes is determined based on the demonstration of competency mastery and not based on completion rates. By using the principles in overcoming the constraints of the current instruction improvement process, this study can contribute to improving instruction in different academic programs based on a quality improvement perspective.

1.2 Objectives of the Study

This study explored the attainment of program indicators across various programs in tertiary education in Ozamiz City during the School Year 2023–2024. Specifically, the study sought to answer the following objectives.

- What is the level of attainment of students in the different programs outcomes across various programs?
- Is there a significant difference in the level of attainment of students in the different program outcomes?

1.3 Conceptual Framework

Program outcomes in this study are conceptualized as being guided by the Policies, Standards, and Guidelines (PSGs) issued by the Commission on Higher Education (CHED) through specific CHED Memorandum Orders (CMOs). PSGs refer to the prescribed minimum standards that higher education institutions must follow in designing and implementing academic programs, while CMOs are official policy issuances that institutionalize these PSGs for particular degree programs. In teacher education, CMOs define the expected competencies, learning outcomes, curriculum structure, and professional attributes that graduates must demonstrate. This framework is anchored on the CHED CMOs for the Bachelor of Secondary Education (BSED) and Bachelor of Elementary Education (BEED), which identify essential domains of teacher preparation such as subject matter mastery, pedagogical competence, assessment skills, learner-centered instruction, and professional values.

The independent variables of the study consist of the program outcomes of the Bachelor of Secondary Education (BSED) majors in English, Science, Filipino, Social Studies, and Mathematics, and the Bachelor of Elementary Education (BEED), as stipulated in their respective CHED CMOs. For BSED major in English, program outcomes emphasize competence in language and literature, effective teaching of language skills, linguistic knowledge, and innovative instructional strategies aligned with secondary education standards. BSED Science outcomes focus on deep conceptual understanding of scientific principles, application of appropriate pedagogical approaches, and effective assessment of scientific learning as required by the CMO. For BSED Filipino, program outcomes are grounded on competencies in Filipino language, literature, culture, and pedagogy consistent with CHED standards for language instruction.

Similarly, BSED Social Studies program outcomes are anchored on the CHED CMO requirements that emphasize sociocultural and historical understanding, civic competence, leadership, global awareness, and social responsibility. BSED Mathematics outcomes are based on CHED-mandated competencies that include mastery of mathematical concepts, problem-solving skills, pedagogical content knowledge, and appropriate assessment strategies for secondary learners. For the BEED program, program outcomes are derived from the CHED CMO for elementary teacher education, highlighting understanding of learner diversity, pedagogical content knowledge across subject areas, appropriate assessment.

These discipline-specific program outcomes collectively influence the dependent variable, which is the coherence and effectiveness of the alignment of overall program learning outcomes. The framework posits that teacher education programs are more likely to produce relevant, responsive, and sustainable learning outcomes when program outcomes are coherently articulated and aligned with the CHED CMOs through effective integration of content knowledge, pedagogy, assessment, and learner-centered approaches. Ultimately, this alignment ensures that institutional goals are met while addressing the expectations of key stakeholders, including students, accrediting bodies, employers, and the broader educational community.

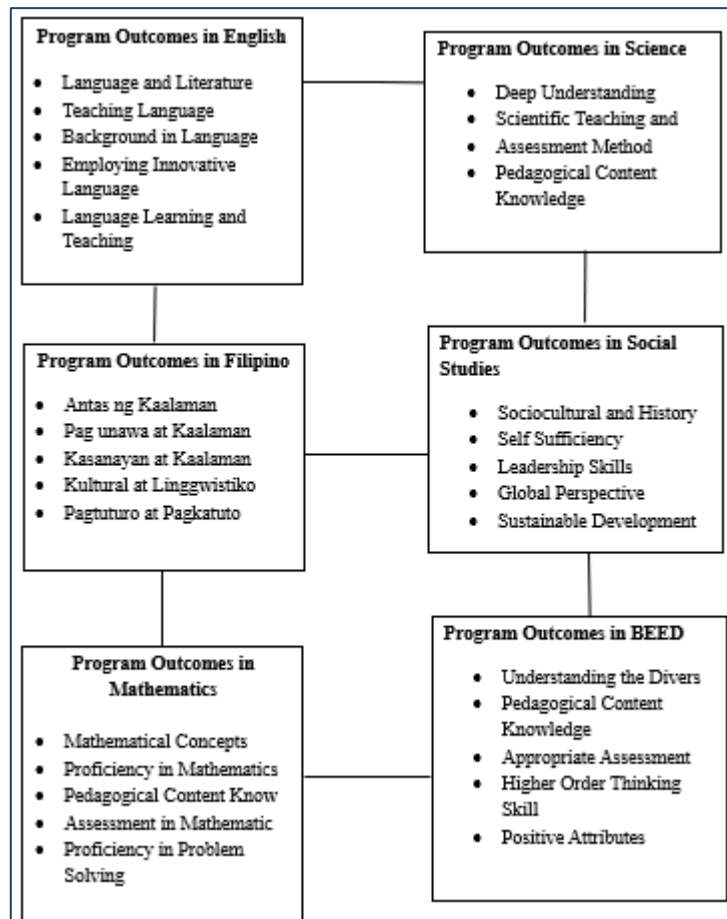


Figure 1. Schematic Diagram of the Study

2. Methods

2.1 Research Design

This study employed a quantitative descriptive research design, which involves the systematic collection and statistical analysis of numerical data to describe existing conditions without manipulating variables. Descriptive research is appropriate when the objective is to determine the status, level, or extent of a phenomenon as it naturally occurs (Creswell & Creswell, 2020).

The use of a quantitative descriptive design is suitable for this study because it aims to determine the level of attainment of program outcomes and indicators across the Bachelor of Secondary Education majors and the Bachelor of Elementary Education (BEED) program. The study focuses on describing and interpreting the extent to which program outcomes are achieved and aligned with established standards, rather than examining relationships, predictions, or cause-and-effect among variables. Since the program outcomes assessed are institutional and curriculum-based, they cannot be manipulated ethically or practically. Thus, the quantitative descriptive design allows for an objective and accurate evaluation of program outcomes using statistical measures such as means and standard deviations (Polit & Beck, 2021).

2.2 Research Setting

The study was conducted at Misamis University, a higher education institution located in Ozamiz City and recognized as the first university in Northwestern Mindanao to be granted Autonomous Status by the Commission on Higher Education (CHED). While the university offers a wide range of academic programs across various colleges, this study was specifically confined to the College of Education, as the focus of the research is on the attainment of program outcomes in teacher education programs.

The College of Education offers undergraduate teacher education programs, including the Bachelor of Elementary Education and Bachelor of Secondary Education, designed to prepare students for teaching careers in elementary and secondary education. These include the Bachelor of Elementary Education (BEED) program and the Bachelor of Secondary Education (BSED) program with majors in English, Filipino, Biological Sciences, Social Studies, and Mathematics. The college also offers a Bachelor of Secondary Education for second coursoers, intended for individuals who already hold a bachelor's degree in another field and wish to pursue a teaching profession.

2.3 Respondents of the Study

The study involved 123 education students from the College of Education at Misamis University, one of the premier higher education institutions in Ozamiz City. Of the total respondents, 38 were fourth-year undergraduate students, while the remaining participants were undergraduate students enrolled in Bachelor of Elementary Education and Bachelor of Secondary Education programs. The respondents were selected to represent their experiences regarding program learning outcomes and how these outcomes contribute to setting clear educational goals, advancing personal and professional development, and ensuring success in their chosen teaching

fields. Specifically, the participants came from the following program destinations: 35 students from the Bachelor of Elementary Education (BEED), 41 from the Bachelor of Secondary Education (BSED) major in English, 28 from BSED major in Filipino, 9 from BSED major in Mathematics, 6 from BSED major in Science, and 4 from BSED major in Social Studies.

A purposive sampling technique was employed in selecting the respondents. This sampling method was deemed appropriate as the study specifically targeted individuals who were directly involved in teacher education programs and were therefore capable of providing relevant data regarding the attainment of program outcomes.

2.4 Research Instruments

The study employed a researcher-made questionnaire as the primary data-gathering instrument to determine the level of attainment of program learning outcomes among student teachers and graduates in the College of Education. The instrument, referred to as the Performance Indicators across Six (6) Different Programs, was developed based on the program outcomes prescribed by the Commission on Higher Education (CHED).

The questionnaire utilized a 4-point Likert scale with the following response categories: 4 – Very High, 3 – High, 2 – Low, and 1 – Very Low.

For the Bachelor of Secondary Education (BSED) major in English, the questionnaire consisted of 25 items divided into the following constructs: Language and Literature, Teaching Language, Background in Language, Employing Innovative Language, Language Learning and Teaching, Research-Oriented Skills, and All-Program Outcomes.

To ensure content validity, the instrument was subjected to expert validation by specialists in teacher education, research, and outcomes-based education. Their recommendations were incorporated to improve the clarity, relevance, and alignment of the items with the program outcomes and CHED Policies, Standards, and Guidelines (PSGs).

Reliability of the instrument was established through pilot testing among respondents with similar characteristics to the target population. The collected data were analyzed using Cronbach's alpha to determine internal consistency. The results indicated that the instrument had acceptable to high levels of reliability.

For data analysis, weighted means were computed to determine the level of attainment of program learning outcomes. The results were interpreted using a 4-point Likert scale continuum, as presented in Table X.

Responses	Continuum	Interpretation
4	3.25 – 4.00	Very High
3	2.50 – 3.24	High
2	1.75 – 2.49	Low
1	1.00 – 1.74	Very Low

2.5 Bachelor of Secondary Education (BSED)

The questionnaires for the BSED majors—English, Science, Filipino, Social Studies, and Mathematics—were researcher-made instruments designed to measure the level of attainment of program learning outcomes. Each questionnaire contained discipline-specific constructs aligned with the CHED Policies, Standards, and Guidelines (PSGs) and corresponding CHED Memorandum Orders (CMOs). These constructs generally included subject matter mastery, pedagogical content knowledge, assessment strategies, learner-centered teaching approaches, and professional competencies.

All BSED questionnaires followed a common structure and utilized the same 4-point Likert scale to ensure consistency in data collection and interpretation. Mean scores falling within the higher ranges indicated a very high level of attainment of program learning outcomes.

2.6 Bachelor of Elementary Education (BEED)

The questionnaire for the Bachelor of Elementary Education (BEED) program was likewise a researcher-made instrument designed to determine the level of attainment of program outcomes among student teachers and graduates. The instrument consisted of constructs aligned with CHED PSGs and CMO for BEED, including learner diversity, pedagogical content knowledge, assessment strategies, higher-order thinking skills, and professional and ethical attributes.

The BEED questionnaire followed the same structure and utilized the same 4-point Likert scale as the BSED instruments to maintain consistency. Weighted mean scores were computed and interpreted using the same continuum, with higher mean scores indicating a very high level of attainment of program learning outcomes.

2.7 Data Collection

Prior to data gathering, the researchers secured a letter of authorization from the College Dean granting permission to conduct the study. Approval was likewise obtained from the research instructor and the program chair. After securing the necessary approvals, an informed consent letter was prepared and distributed to the respondents, clearly explaining the purpose of the study, ensuring voluntary participation, and observing ethical considerations such as confidentiality and anonymity.

After notifying the respondents, the researchers used Google Forms to administer the survey questionnaires. The links for the survey questionnaires were disseminated to the student teachers and graduates of the College of Education in various programs. The data collected from the respondents were automatically recorded and exported to Microsoft Excel for organization, coding, and preparation for statistical analysis.

For data analysis, the organized data was subjected to statistical analysis using Minitab. Descriptive statistical tools, including frequency, weighted mean, and standard deviation, were used to summarize and interpret the level of attainment of program learning outcomes for the BSED and BEED programs. These tools allowed the study to systematically describe the extent to which the

program outcomes were achieved across the different programs and specializations. The results were interpreted using the standardized 4-point Likert scale continuum to determine the degree of attainment, ranging from Very Low to Very High.

For the interpretation of data, the calculated weighted means were used to interpret the results based on the continuum established to describe the level of attainment of the program learning outcomes. The results of the statistical tests were presented in a tabular form to aid in clarity and understanding. The results were analyzed and interpreted in line with the objectives of the research and aided by relevant literature.

2.8 Ethical Considerations

The ethical integrity of the study was upheld by adhering to the ethical principles outlined in Republic Act No. 10173, commonly referred to as the Data Privacy Act of 2021, which underscores the significance of safeguarding individuals' personal data and respecting their rights to privacy and data security. Additionally, ethical standards set forth by Bryman, Bell, and Harley (2022) were followed to ensure the study's ethical conduct. Throughout the research process, no harm befell the respondents, who provided consent prior to data collection by signing an informed consent form, thus expressing their willingness to participate. Furthermore, the study's objectives, potential benefits, and risks were transparently communicated to the participants, who were assured of their ability to withdraw from the survey at any time while maintaining confidentiality of their responses. Anonymity and confidentiality were rigorously maintained, and efforts were made to prevent any misleading or biased representation of primary data findings. Any affiliations, funding sources, or conflicts of interest were disclosed. All communication pertaining to the research was conducted with honesty and transparency, and respondents were encouraged to reach out to the researchers with any inquiries or concerns.

2.9 Data Analysis

The data gathered in this study were analyzed using Minitab statistical software. Descriptive and inferential statistical tools were employed to address the objectives of the study.

Descriptive statistics, including frequency, percentage, weighted mean, and standard deviation, were used to summarize and describe the level of attainment of program learning outcomes among the respondents. The weighted mean was utilized to determine the overall level of attainment based on the responses to the questionnaire.

To determine whether there was a significant difference in the level of attainment of program learning outcomes across the different programs, Analysis of Variance (ANOVA) was employed. The level of significance was set at 0.05.

The results of the statistical analyses were presented in tabular form and interpreted using the established 4-point Likert scale continuum.

3. Results and Discussion

3.1 Levels of Student's Attainment in BSEd English Program Outcomes

Table 1 presents the overall attainment of program outcomes in English, which shows that students performed at a very high level (Overall $M = 3.73$, $SD = 0.49$) across all constructs. Among the individual constructs, Language and Literature exhibited the highest level of attainment ($M = 3.85$, $SD = 0.36$), followed by Employing Innovative Language ($M = 3.76$, $SD = 0.49$), Background in Language ($M = 3.73$, $SD = 0.55$), Language Learning and Teaching ($M = 3.71$, $SD = 0.46$), and Teaching Language ($M = 3.66$, $SD = 0.62$), which had the lowest mean score among the constructs. These findings show that students have a high level of understanding and competence in language-related knowledge and teaching skills, which is a clear indication of the effectiveness of the program in equipping them with the necessary skills for involvement in language education. The high scores on all constructs also show that the curriculum and teaching approaches in the English program are aligned with the learning outcomes.

These findings indicate that students have a high level of understanding and competence in language-related knowledge and teaching skills. The consistently high scores across all constructs suggest that the curriculum and teaching approaches in the English program are effectively aligned with the intended learning outcomes, preparing students for the demands of language instruction and literature analysis. This assessment underscores the program's commitment to excellence in English language education, positioning graduates as competent and knowledgeable practitioners in the field.

This study examines college environments and outcomes among students in three different types of living-learning programs compared with a control sample at one university. Results reveal that living-learning students exhibit higher levels of engagement in college activities with stronger academic outcomes, and experiences that varied by program type (Inkelas & Weisman, 2022). This study provides evidence that encouraging academic momentum via structured and comprehensive support can significantly improve community college graduation rates. It also provides evidence that ongoing and intrusive advisement can encourage positive academic outcomes among community college students (Kolenovic & Linderman, 2020). To support the long-term success of underprepared students, many community colleges are experimenting with accelerated developmental education models, which allow students to complete remediation and enroll in college-level within a shorter time frame. This study examines three developmental acceleration programs, including college.

Overall, students on accelerated pathways were more likely than a set of matched peers to successfully complete the relevant college-level course within 3 years. However, to help maintain strong student performance within subsequent college-level courses, accelerated pathways may need to incorporate rigorous content, systematic faculty development, and targeted student supports (Jaggars & Hodara, 2021).

The table strongly supports the discussion on the program's strengths in English language education. The high average scores across different areas show a strong foundation in both theoretical knowledge and practical skills. This confirms that the program effectively prepares students for successful careers in teaching and related fields. This discussion emphasizes the program's dedication to academic rigor and quality, ensuring that graduates are well-prepared to make valuable contributions to the field of English language education.

Table 1: Level of Students' Attainment in BSED English Program Outcomes

Construct	Mean	SD	Remarks
1. Possess broad knowledge of language and literature for effective learning	3.85	0.36	Very High
2. Use English as a local language in a multilingual context as it applies to the teaching of language and literature	3.66	0.62	Very High
3. Acquire an extensive reading background in language, literature, and allied fields	3.73	0.55	Very High
4. Demonstrate proficiency in oral and written communication	3.76	0.49	Very High
Overall Attainment	3.74	0.46	Very High

Note: 3.25-4.0 (Very High); 2.50-3.24 (High); 1.75-2.49 (Low), 1.0-1.74 (Very Low)

3.2 Levels of Student's Attainment in BSED Filipino Program Outcomes

Table 2 shows that the program outcomes in Filipino demonstrate a very high overall attainment (M = 3.73, SD = 0.42) across key constructs. Among the specific domains, students achieved the highest scores in Skills and Knowledge (M = 3.89, SD = 0.32), followed by Knowledge (M = 3.82, SD = 0.39), Teaching and Learning (M = 3.82, SD = 0.39), and Understanding and Knowledge (M = 3.61, SD = 0.63), with the lowest score in Cultural and Linguistic Understanding (M = 3.61, SD = 0.63). These results indicate that students possess a robust mastery of Filipino language and culture, along with effective pedagogical skills. The consistent high attainment across constructs underscores the program's success in equipping students with comprehensive knowledge and practical skills for effective language education and cultural appreciation.

These results indicate that students possess strong mastery of Filipino language and culture, along with effective pedagogical skills. The consistently high attainment across constructs suggests that the program effectively equips students with both theoretical knowledge and practical skills for Filipino language education and cultural instruction.

This discussion highlights the program's role in cultivating knowledgeable and skilled educators who are equipped to address the diverse needs of Filipino language learners in both local and global contexts. The study aimed to answer the following: to determine the profile of the Teacher Education graduates along gender, field of specialization, and program specialization; to determine the extent of attainment of Teacher Education graduates on their Program Learning Outcomes; and to determine significant difference on the extent of attainment of Teacher Education graduates on their Program Learning Outcomes when grouped according to the profile of Teacher Education graduates (Russell & Finger, 2018).

This study aimed to determine the Extent of Attainment of Teacher Education Graduates of their Program Learning Outcomes. The level of attainment of teacher education graduates of their program learning outcomes is very high. This implies that teacher education graduates have high level of attainment of the program learning outcomes of the university (Silva & Stephen, 2019). It shows that the highest program learning outcome attained is on constructing and/or selecting and employing the most appropriate tool to improve various learning experiences (Rotherham & AWillingham, 2022).

Teacher education students are in transition to Outcomes-Based Education, and the faculty is responsible for identifying competencies and learning outcomes, and for redesigning curriculum, including learning activities and assessments, in their areas of specialization. On the other hand, among the program learning outcomes of the Teacher Education Department, the item on living out Christian values and fostering citizenship and patriotic feeling is the lowest, as assessed by teacher education graduates (Anderson & Krathwohl, 2018). The table shows the extent of attainment of the teacher education graduates of their program learning outcomes when grouped according to their program specialization. It can be gleaned in the table that there is a significant difference on the extent of attainment of the teacher education graduates of their program learning outcomes when grouped according to their program specialization.

This only proves that the teacher education graduates are really planning to help themselves in passing the Licensure examination and to top the board. It also shows that they are to pursue Master's degree after graduation to let them continue and improve professional practice. In Offering services and share expertise and facilities with other educational entities in attaining the goals of quality basic education it shows that the teacher education graduates is highly social aware and has an involvement in enriching and enhancing their ability to teach like attending seminars, community services and organizational services.

Table 2: Level of Students' Attainment in BSED English Program Outcomes

Construct	Mean	SD	Remarks
1. Nagpapamalas ng mataas na antas ng kaalaman sa pagtuturo ng wika at panitikang Filipino	3.82	0.39	Very High
2. Nagpapakita ng malawak at malalim na pag-unawa at kaalaman sa ugnayan ng wika, kultura, at lipunan	3.61	0.63	Very High
3. Nakagagamit ng iba't ibang kasanayan at kaalaman sa proseso ng pagtuturo-pagkatuto	3.89	0.32	Very High
4. Nagtataglay ng kaalaman hinggil sa usapin ng kultural at linggwistikong dibersidad ng bansa	3.61	0.63	Very High
Overall Attainment	3.75	0.49	Very High

Note: 3.25-4.0 (Very High); 2.50-3.24 (High); 1.75-2.49 (Low), 1.0-1.74 (Very Low)

3.3 Level of Students' Attainment in BSED Mathematics Program Outcomes

Table 3 shows that the program outcomes in Mathematics demonstrate a very high overall attainment (M = 3.71, SD = 0.58) across key constructs. Among the specific domains, students achieved the highest scores in Pedagogical Content Knowledge (M = 3.89,

SD = 0.33) and Assessment in Mathematics (M = 3.89, SD = 0.33), followed by Proficiency in Mathematics (M = 3.67, SD = 0.50), and the lowest scores in Mathematical Concepts (M = 3.56, SD = 0.73) and Proficiency in Problem Solving (M = 3.56, SD = 0.73). These results indicate that students possess strong mastery of both mathematical theories and practical pedagogical skills. The particularly high attainment in Pedagogical Content Knowledge and Assessment suggests that students are well-prepared to communicate mathematical concepts effectively and evaluate student learning. Overall, the findings highlight the program’s success in aligning theoretical understanding with practical application for future mathematics educators. Moreover, the result shows that teacher education graduates are already capable and prepared to meet the demands of 21st-century learners, especially in integrating technology as a tool to enhance learners’ academic engagement and achievement. The graduates’ demonstrated proficiency in using technological tools suggests that they can effectively support modern teaching–learning processes, including digital assessment, instructional delivery, and data-driven evaluation.

This finding is supported by (Lubisi & Gutlig, 2023), who emphasized that teachers’ ability to operate computers and utilize technology in assessment, evaluation, and information delivery is crucial in providing appropriate and effective learning materials. Therefore, the high attainment score implies that the graduates are not only knowledgeable in Mathematics but are also competent in leveraging technology to create meaningful, learner-centered instructional experiences that promote academic success.

Table 3: Level of Students’ Attainment in BSED Mathematics Program Outcomes

Construct	Mean	SD	Remarks
1. Exhibit competence in mathematical concepts and procedures	3.56	0.73	Very High
2. Exhibit proficiency in relating mathematics to other curricular areas	3.67	0.50	Very High
3. Manifest meaningful and comprehensive pedagogical content knowledge (PCK) of mathematics	3.89	0.33	Very High
4. Demonstrate competence in designing, constructing, and utilizing different forms of assessment in mathematics	3.89	0.33	Very High
Overall Attainment	3.75	0.47	Very High

Note: 3.25-4.0 (Very High); 2.50-3.24 (High); 1.75-2.49 (Low), 1.0-1.74 (Very Low)

3.4 Level of Students’ Attainment in BSED Science Program Outcomes

Table 4 shows that the program outcomes in Science demonstrate very high overall attainment across key constructs. Students achieved the highest score in Deep Understanding (M = 4.00, SD = 0.00), followed by Assessment Methods (M = 4.00, SD = 0.00) and All Programs (M = 3.83, SD = 0.40). Scientific Teaching and Pedagogical Content Knowledge both achieved mean scores of 3.66 (SD = 0.51), indicating students’ competence in integrating scientific content into teaching practices.

These results suggest that students possess strong mastery of scientific concepts and effective pedagogical skills. The high attainment across constructs reflects the program’s success in preparing future science educators capable of applying scientific knowledge and methodologies in the classroom.

The overall attainment M = 3.83 further underscores the program's success in achieving its educational objectives in Science. This score consolidates the exceptional performance across all constructs, reflecting the program's dedication to academic rigor and excellence in scientific education. The interconnected elements of academic motivation, student engagement, and performance make up the central goal of a school-wide improvement effort of improving quality education (ML Comuyog, 2022). Students under the Teacher Education program should attend seminars and trainings to maintain professional responsibility and acquire new strategies in teaching. Studies should also be conducted to assess the level of attainment of the program learning outcomes on other programs offered in the university (Borsoto & Lescano, 2021). Students have the highest attainment in terms of creating a conducive learning environment for diverse learners, using technology as a tool to increase learners’ academic engagement and success, designing and integrating instructional materials for student-learning and contributing to ongoing educational research by teaching and modeling inquiry methodologies and data-informed instruction (Ricardo & Ma. Duran, 2022).

The data from the table provides compelling evidence of the program's strengths in science education. The consistently high mean scores across critical constructs affirm the program's commitment to equipping students with deep scientific knowledge, effective pedagogical skills, and innovative teaching methodologies. This discussion highlights the program's pivotal role in preparing graduates to contribute meaningfully to scientific research, education, and innovation, ensuring they are well-prepared to meet the evolving challenges and opportunities in the field of science.

Table 4: Level of Students’ Attainment in BSED Science Program Outcomes

Construct	Mean	SD	Remarks
1. Demonstrate deep understanding of scientific concepts and principles	4.00	0.00	Very High
2. Apply scientific inquiry in teaching and learning	3.67	0.52	Very High
3. Utilize effective science teaching and assessment methods	4.00	0.00	Very High
4. Manifest meaningful and comprehensive pedagogical content knowledge (PCK) of the sciences	3.67	0.52	Very High
Overall Attainment	3.83	0.26	Very High

Note: 3.25-4.0 (Very High); 2.50-3.24 (High); 1.75-2.49 (Low), 1.0-1.74 (Very Low)

3.5 Level of Students’ Attainment in BSED Social Studies Program Outcomes

Table 5 shows that the program outcomes in Social Studies demonstrate a very high overall attainment (M = 3.63, SD = 0.51) across key constructs. Among the specific domains, students achieved the highest scores in Self Sufficiency (M = 3.75, SD = 0.50),

Leadership Skills (M = 3.75, SD = 0.50), and Global Perspective (M = 3.75, SD = 0.52), followed by Sociocultural and History (M = 3.25, SD = 0.50).

These results indicate that students possess strong proficiency in personal autonomy, leadership capabilities, global awareness, and sociocultural and historical understanding. The high attainment across these domains reflects the program’s effectiveness in equipping students with critical thinking, civic responsibility, and competencies essential for meaningful participation in society. Moreover, the high mean score in Global Perspective underscores students' awareness of global issues, intercultural competence, and their ability to analyze complex international dynamics within social contexts. This prepares them to engage thoughtfully with global challenges and opportunities, reflecting the program's commitment to cultivating well-rounded global citizens. While Sustainable Development received a slightly lower (M = 2.75 ,SD = 0.50), categorized as "High," it indicates a solid foundation in understanding environmental sustainability and its implications within social studies education. This construct emphasizes the program's efforts to integrate interdisciplinary perspectives and prepare students to address contemporary environmental challenges through informed social action.

The overall attainment M = 3.45 consolidates these achievements, reflecting the program's success in achieving its educational goals in social studies. This score affirms the program's commitment to academic excellence and its role in equipping students with the knowledge, skills, and values necessary to navigate diverse social landscapes and contribute meaningfully to societal progress. However, for student to be globally competitive there must be a need to ensure that Filipino students possess the right competencies, skills, values, and attitudes needed, and this is where Higher Education Institutions will come in through the delivery of excellent quality education (Walahoski & Suzanne, 2020). Outcomes-Based Education (OBE) as an educational method that focuses on what students can actually do after they are taught. Further, OBE is a paradigm shift in educational practices since there is an emphasis on the outcomes which are achieved results or consequences of what was learned – evidence that some learning took place (Anderson & Krathwohl, 2020)

Table 5: Level of Students’ Attainment in BSED Social Studies Program Outcomes

Construct	Mean	SD	Remarks
1. Utilize appropriate various sociocultural and historical materials in explaining current issues	3.25	0.50	Very High
2. Organize communities towards self-reliance and self-sufficiency	3.75	0.50	Very High
3. Demonstrate leadership skills that will help in teaching or training students who will empower their communities	3.75	0.50	Very High
4. Integrate local and global perspectives in teaching the principle of the common good	3.75	0.52	Very High
5. Employ principles of sustainable development in teaching and learning	3.45	0.50	High

Note: 3.25-4.0 (Very High); 2.50-3.24 (High); 1.75-2.49 (Low), 1.0-1.74 (Very Low)

3.6 Level of Students’ Attainment in the Bachelor of Elementary Education Program Outcomes

Table 6 shows that the program outcomes in BEED (Bachelor of Elementary Education) demonstrate a very high overall attainment (M = 3.83, SD = 0.38) across key constructs. Among the specific domains, students achieved the highest score in Positive Attributes (M = 3.87, SD = 0.34), followed by Pedagogical Content Knowledge (M = 3.84, SD = 0.37), and Understanding the Diverse Learner (M = 3.81, SD = 0.40), Appropriate Assessment (M = 3.81, SD = 0.40), and Higher Order Thinking Skills (M = 3.81, SD = 0.40). These results indicate that students possess strong proficiency in addressing the diverse needs of learners, applying effective pedagogical strategies, conducting appropriate assessments, fostering critical thinking skills, and promoting positive socio-emotional attributes. Overall, the consistently high attainment underscores the program’s effectiveness in preparing future elementary educators to create inclusive and supportive learning environments that cater to the varied backgrounds and abilities of their students. The overall attainment score of 3.82 underscores the program's overarching success in achieving its educational objectives in BEED. This score consolidates the high performance observed across all constructs, reflecting the program's commitment to rigorous academic standards and comprehensive teacher preparation. BEED students are more cooperative, participative and have higher level of attainment on the 14 program learning outcomes compared to the different field of specialization of BSED program (Yelland et al., 2022). BEED students have the highest attainment in terms of creating a conducive learning environment for diverse learners, using technology as a tool to increase learners’ academic engagement and success, designing and integrating instructional materials for student-learning and contributing to ongoing educational research by teaching and modeling inquiry methodologies and data-informed instruction (Nolasco et al., 2019).

The data from the table highlights the program's strengths in BEED, emphasizing both theoretical knowledge and practical skills essential for effective elementary education. The consistently high mean scores across critical constructs affirm the program's role in equipping graduates with the necessary competencies to excel as elementary educators, capable of making meaningful contributions to the academic, social, and emotional development of young learners. This discussion underscores the program's dedication to fostering competent and compassionate educators who are well-prepared to meet the challenges and opportunities in elementary education today.

Table 6: Level of Students’ Attainment in the Bachelor of Elementary Education Program Outcomes

Construct	Mean	SD	Remarks
1. Demonstrate in-depth understanding of the diversity of learners in various learning areas	3.81	0.40	Very High
2. Manifest meaningful and comprehensive pedagogical content knowledge (PCK) of the different subject areas	3.84	0.37	Very High

3. Utilize appropriate assessment and evaluation tools to measure learning outcomes	3.81	0.40	Very High
4. Manifest skills in communication, higher order thinking and use of tools and technology to accelerate learning and teaching	3.81	0.40	Very High
Overall Attainment	3.82	0.39	Very High

Note: 3.25-4.0 (Very high); 2.50-3.24 (High); 1.75-2.49 (Low), 1.0-1.74 (Very Low)

The statistical analysis presented in the table reveals the outcomes of various assessments across multiple programs, focusing on different aspects of mathematics education and pedagogy. Across all measures, including Mathematical Concepts, Proficiency in Mathematics, Pedagogical Content Knowledge, Assessment in Mathematics, Proficiency in Problem Solving, Techniques in Teaching Mathematics, Appreciate Mathematics, Antas ng Kaalaman, Pag unawa at Kaalaman, Kasanayan at Kaalaman, Kultural at Linggwistikong Bansa, Pagtuturo at Pagkatuto, Wikang Panturo, Understanding the Diversity, Pedagogical Content Knowledge, Appropriate Assessment, Higher Order Thinking Skills, Positive Attributes, Professional Development, Deep Understanding, Scientific Teaching and Learning, Assessment Method, and Professional Development, the calculated F-statistics and corresponding p-values indicate that none of the differences observed were statistically significant.

Table 7: Test of Significant Difference in the Level of Students’ Attainment Across Program Outcomes

Program	Mean	SD	F	p-value
BSED English	3.74	0.46	1.21	0.305
BSED Filipino	3.75	0.49		
BSED Mathematics	3.75	0.47		
BSED Science	3.83	0.26		
BSED Social Studies	3.45	0.51		
BEED	3.82	0.39		

Table 7 presents the test of significant difference in the level of students’ attainment across program outcomes among BSED majors and the BEED program. The mean scores show that students in BSED Science achieved the highest attainment (M = 3.83, SD = 0.26), followed closely by BEED (M = 3.82, SD = 0.39), BSED Filipino (M = 3.75, SD = 0.49), BSED Mathematics (M = 3.75, SD = 0.47), and BSED English (M = 3.74, SD = 0.46). The lowest attainment was observed in BSED Social Studies (M = 3.45, SD = 0.51). The computed F-value of 1.21 and p-value of 0.305 indicate that there is no statistically significant difference observed in the level of attainment across the programs at $\alpha = 0.05$. This suggests that students across the different BSED majors and the BEED program achieved similarly high levels of attainment in their respective program outcomes.

4. Summary, Findings, Conclusions, And Recommendations

4.1 Summary

This study explored the level of attainment of program indicators across various teacher education programs during the School Year 2023–2024 using a quantitative descriptive research design. Researchers gathered information from 39 undergraduate students and 88 graduates who were studying education through six questionnaires. Questionnaires served as the data collection tools, specifically the Performance Indicator Questionnaires across six different programs in the College of Education. Data collection took place using Google Forms. Researchers sought and obtained permissions and consent letters before gathering the data. The collected data were cleaned and analyzed using Excel and Minitab, and the findings were presented in tables. Ethical considerations included following the Data Privacy Act of 2021 and adhering to the ethical guidelines set by Bryman and Bell (2021). Statistical analyses included calculating mean, standard deviation, frequency, and percentage.

The purpose of this study was to ascertain the degree to which teacher education graduates met the learning outcomes of their programs. Graduates of teacher education programs get very high levels of learning outcomes. This indicates that a high degree of achievement of the university’s program learning outcomes is attained by teacher education graduates. Additionally, it shows that creating, choosing, and using the best tool to enhance different learning experiences is the program’s highest learning outcome.

4.2 Findings

The following are the findings of the study:

- Students across all programs demonstrated a very high level of attainment in their respective program outcomes. BSED and BEED students showed strong mastery of content, pedagogical skills, assessment strategies, and professional qualities aligned with CHED-PSGs.
- There were no statistically significant differences in attainment among the programs, indicating that all programs maintain similarly high outcomes and consistent quality of education.

4.3 Conclusions

Based on the findings, the following conclusions were made:

- Students across all programs in the College of Education at Misamis University consistently demonstrated a very high level of attainment in their respective program outcomes. BSED students in English, Filipino, Mathematics, Science, and Social Studies showed strong mastery of content, effective pedagogical skills, assessment strategies, and professional attributes. BEED students exhibited excellent pedagogical knowledge across subject areas, awareness of learner diversity, effective assessment practices, strong communication and higher-order thinking skills, and professional commitment. These results indicate that the programs are well-aligned with CHED Policies, Standards, and Guidelines (PSGs) and effectively prepare graduates for teaching in diverse educational contexts.

- Analysis of program outcomes across the different BSED majors and the BEED program revealed no statistically significant differences ($F = 1.21$, $p = .305$). This indicates that all programs achieve similarly high outcomes, demonstrating consistent program quality and effectiveness in producing competent, knowledgeable, and well-prepared educators.

4.4 Recommendations

The following are the recommendations based on the study's findings and conclusions.

- Students should continue to actively engage in their academic and professional preparation by participating in experiential learning opportunities such as teaching demonstrations, internships, and educational seminars. They are also encouraged to strengthen their reflective practices and continuously improve their pedagogical and content knowledge to sustain their very high level of attainment.
- Teachers should maintain and further enhance their effective teaching strategies by integrating innovative, learner-centered approaches and technology-based instruction. Continuous professional development, such as attending trainings, workshops, and seminars aligned with CHED-PSGs, should be prioritized to keep teaching practices updated and responsive to current educational demands.
- School administrators should sustain the high quality of education by continuously monitoring and evaluating program implementation to ensure alignment with CHED Policies, Standards, and Guidelines (PSGs). They should also provide adequate resources, support faculty development programs, and strengthen institutional policies that promote excellence in teacher education.
- The institution may regularly review and enhance the curriculum across all programs to ensure it remains relevant, updated, and responsive to emerging trends in education. Incorporating 21st-century skills, inclusive education practices, and digital competencies will further strengthen program outcomes.
- Future studies may explore other variables not covered in this research, such as teaching effectiveness during actual classroom practice, graduates' employability, or long-term professional performance. Expanding the scope to include other institutions may also provide comparative insights into program effectiveness.

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