ISSN: 2252-8822, DOI: 10.11591/ijere.v14i4.32609

Graduate competencies as predictors of the pre-service English teachers' work-readiness

Cristie Ann L. Jaca¹, Wilson D. Castañeda Jr.²

¹College of Education, Cebu Technological University, Cebu City, Philippines ²Department of Mathematics and Statistics, Cebu Technological University, Cebu City, Philippines

Article Info

Article history:

Received Aug 28, 2024 Revised Jan 30, 2025 Accepted Mar 2, 2025

Keywords:

Curricular program
Graduate competencies
Pioneer graduates
Pre-service English teachers
Work-readiness

ABSTRACT

This study examines the competencies that predict work readiness among the pioneering cohort of English graduates from a newly implemented curriculum. By evaluating graduates' perceived competencies and workreadiness over the curriculum's initial four years, the research addresses its relevance with the current demands of the teaching profession. Employing a descriptive-survey quantitative research design and regression analysis, the study evaluated all 43 graduates of bachelor of secondary education (BSEd) major in English. Respondents were assessed on work readiness and core competencies in content, pedagogy, and essential 21st-century skills, including 4Cs (communication, collaboration, critical thinking, and creativity). Findings revealed that, while graduates demonstrate confidence in pedagogy, creativity, and collaboration, there remains a need for a more balanced skill set, particularly in content knowledge and critical thinking. Regression analysis identified that pedagogy, communication, and critical thinking are key predictors of work-readiness, highlighting that these skills significantly enhance graduates' preparedness for a dynamic workplace. These insights emphasize the need to refine program objectives to support future cohorts better, underscoring the importance of analyzing graduate competencies to improve curriculum design. This study contributes to adapting educational programs and preparing future English teaching professionals to meet the complexities of modern education and evolving workforce demands.

This is an open access article under the **CC BY-SA** license.



3211

Corresponding Author:

Cristie Ann L. Jaca College of Education, Cebu Technological University MJ Cuenco cor. R. Palma Street, Cebu City, Philippines Email: cristieann.jaca@ctu.edu.ph

1. INTRODUCTION

The evolving landscape of educational demands continues to shape critically the role of teacher education programs in preparing graduates and professionals with the skills and knowledge essential for modern classrooms. This includes content expertise, pedagogical skills, and significant 21st-century graduate competencies such as effective 4Cs (communication, collaboration, critical thinking, and creativity). Graduate competencies include a range of skills, knowledge, and attitudes crucial for effective workplace performance. These competencies significantly influence employability outcomes, particularly in education, where integrating practical skills and theoretical understanding must converge to ensure readiness for professional challenges [1].

However, it becomes challenging to determine the program's relevance and effectiveness in fostering work-readiness without examining the competencies acquired by graduates. This lack of assessment

poses a risk of producing graduates who may not fully meet the profession's expectations or struggle to navigate its challenges. Evaluating whether the program equips graduates with the necessary competencies has become essential in every curriculum to transition seamlessly into their roles as educators, addressing any gaps that may hinder their success and, ultimately, the quality of education they provide.

Teacher education programs play a critical role in developing the competencies and readiness of graduates, preparing educators who contribute to educational quality, school advancement, and effective curriculum implementation. Teachers are essential to nurturing individuals and shaping the nation's future, making holistic development in teacher education essential. According to CMO 30, s. 2004, article I, section 1, higher education institutions (HEIs) are tasked with preparing pre-service teachers for primary and secondary education, with the success of Philippine education mainly hinging on the quality of these programs.

The primary goal of teacher education programs is to ensure graduates' work readiness. However, this goal is shaped by new challenges and evolving employment trends beyond global competition. HEIs face increasing expectations to ensure graduates transition smoothly into teaching roles. While students develop competencies for labor market demands, institutions remain focused on assessing their employment readiness, a crucial factor in post-graduation success [2].

Equipping pre-service teachers with basic pedagogical and content knowledge and skills has become a challenging priority in teacher education programs. In Siregar [3], pre-service teachers highlighted two main pedagogical competencies: effective technology integration and adapting methods to diverse classroom needs. However, as noted in Kösal and Ulum [4], pre-service English teachers often struggle with listening and speaking skills due to limited practice, revealing gaps in handling complex classroom situations. While studies have explored their practicum teaching experiences [5], beliefs on English language teaching (ELT) [6], and teaching strategies [7], there has been relatively limited exploration of the competencies and work-readiness of a pioneering cohort of English pre-service teachers within a university setting.

To address these concerns, a study was conducted on the pioneering graduates of Cebu Technological University (CTU), a premier institution with 24 campuses in Cebu, only two of which offer the bachelor of secondary education (BSEd) major in English. The main campus introduced this program in 2019, with its first cohort graduating in 2023. This situation underscores the importance of analyzing these graduates' competencies and employment readiness.

While graduate tracer studies provide valuable insights into educational experiences and industry-relevant skills, ongoing assessment of student competencies is essential to ensure alignment with institutional services and evolving demands. Observing the program's effectiveness over its initial four years can offer insights into how well it prepares graduates for rescaling and retooling. Such continuous evaluation could lead to targeted curriculum improvements, refined teaching methods, and optimized support services, ultimately equipping pre-service teachers to thrive in today's diverse educational landscape.

The thrust of UNESCO on education for sustainable development (ESD) emphasizes the need for transformative shifts in educational perspectives through curricular reforms. In this context, this research aims to i) examine the perceived competencies of the inaugural cohort of BSEd English pre-service teachers at CTU, focusing on content knowledge, pedagogical skills, the four essential competencies 4Cs, and work-readiness and ii) ascertain if these perceived competencies serve as predictors of the respondents' perceived level of work-readiness. The findings may yield valuable insights into the curriculum as articulated and experienced by the first graduates of the BSEd-English program, providing foundational data for future program analysis and enhancements that could improve the student teaching experiences.

Work-readiness is frequently associated with the concepts of employability. It now encompasses career self-management, professional identity, social capital, and influences like labor market trends and economic factors [8]. As employability has gained importance in HEIs, universities increasingly prioritize understanding graduates' employment profiles through tracer and employability studies to design curricula that meet potential employer demands [9].

Employability has transformed into a competitive focus on specific skills employers seek [10]. HEIs face rising enrollment rates in the Philippines, but a diploma alone no longer guarantees employment. The 4th Philippine graduate tracer study by the Philippine Institute for Development Studies found gaps in graduates' communication, critical thinking, and problem-solving skills [11]. Therefore, teacher graduates' employability is crucial to a teacher education institution's effectiveness. High employability rates indicate quality training and an institution's responsiveness to shifting educational and labor market demands.

Teacher education programs are critical to immersing pre-service teachers in pedagogical practices that meet evolving educational needs [12]. Effective teaching requires pedagogical competence, or the ability to manage learning effectively—this includes planning comprehensive lessons, facilitating the learning process, and conducting accurate assessments [13]. Equally essential is content knowledge, enabling teachers to thoroughly master their subject area or discipline, delivering explicit, in-depth instruction to help students

understand core concepts, build skills, and develop critical thinking [14]. Teachers must be competent in knowing what they intend to teach and how this knowledge varies across different learning content areas.

Although there is growing emphasis on training pre-service teachers in essential pedagogical and content knowledge, questions remain about their readiness to tackle the challenges of the 21st-century classroom [15]. This raises concerns about the teacher education curriculum's effectiveness in equipping students with necessary teaching competencies. Further study is required, especially with pioneering pre-service English teachers in a new program, to understand their competencies better and gather insights into the program's outcomes and potential improvements.

Technological advancements in the 21st century have transformed education, requiring language learners to master a wide range of skills to keep pace with educational learning and align with the demands of the industrial revolution. Educators must integrate essential 21st-century skills—4Cs—into classroom activities to prepare students for the modern world [16]. However, equipping teachers with these skills remains challenging as many aspects must still be effectively imparted to students [17]. To engage today's generation of tech-savvy, multitasking learners, educators must inspire them and facilitate the development of relevant abilities. Thus, pre-service and in-service teachers need a robust foundation in 21st-century competencies to develop the capabilities required for modern learners.

Communication is the process of sharing ideas, information, and opinions toward achieving a specific goal. This can be described as the process through which information is transmitted from the sender, utilizing both verbal and non-verbal methods, to the recipient. The predominant form of communication is verbal interaction, which enables two-way interaction and feedback on the message. In addition to spoken communication, non-verbal cues, attentive listening, and thoughtful responses are crucial for effective communication [18].

Collaboration involves individuals working together toward shared goals, pooling resources and efforts beyond what one person could achieve alone [19]. As societal challenges grow more complex, collaborative skills are increasingly vital, for knowledge acquired through such collaboration is distributed among various individuals. Thus, involving students in collaborative activities for extensive instruction and evaluation provides opportunities for quality learning.

Critical thinking is the capacity to engage in rational and logical thought. As an active process, it involves analyzing, learning, and observing issues to reach reasoned conclusions [20]. This skill extends beyond grammar and vocabulary to include independent learning and decision-making for English language learners. Educators should also improve teaching methods that promote critical thinking to support students' analytical and problem-solving abilities [21].

Creativity is the capacity to generate novel or original ideas while also exploring innovative techniques [22]. Developing this skill motivates students to embrace diverse perspectives, concepts, and approaches. With an increasing focus on innovation and reports of declining creative performance, promoting creativity in education and business contexts has become essential [23].

Today, students' critical thinking and problem-solving abilities are crucial not only for academic success but also for navigating future uncertainties and challenges. A survey by the American Management Association shows that approximately 75.5% of business leaders prioritize the 4Cs for maintaining a globally competitive workforce [24]. However, effectively teaching the 4Cs presents challenges due to limited educator expertise in defining and applying strategies to cultivate these skills within the classroom environment [25]. Public and private EFL teachers face difficulties in integrating the 4Cs, constrained by factors such as limited facilities, lesson planning obstacles, and student confidence and engagement [26].

Despite emphasizing 21st-century skills, a gap exists in assessing pre-service teachers' competencies in language education programs [27]. Teacher assessment in ELT has been largely overlooked, especially for pre-service educators. Specific learning methods in teacher training programs alone do not equip teachers with the essential skills. Instead, practical degree programs must be emphasized to adequately prepare pre-service teachers for global demands, enhancing their skills and readiness to meet labor market needs and address global challenges [28].

Thus, it is essential to examine the competencies of the first cohort of BSEd English graduates at CTU, as it may yield valuable insights into the initial curriculum implementation of the program. With only two campuses offering this program, findings can significantly guide administrators and curriculum developers in aligning the curriculum with teaching profession demands. By focusing on practical skills and real-world readiness, CTU can make informed curriculum adjustments to better prepare students, fostering adaptable and confident graduates ready to contribute meaningfully in their fields.

2. METHOD

Evaluating the competencies of the first graduates from CTU BSEd English program offers valuable insights into curriculum effectiveness and essential employability skills. The study is conducted at

3214 ISSN: 2252-8822

CTU-main campus, a premier multidisciplinary state university known for its commitment to accessible and quality education. The university's diverse student body reflects a broad spectrum of experiences, perspectives, and educational needs for an academic program. This highlights the need to examine these graduates' competencies and work readiness at this university.

This study employed a descriptive-survey quantitative research design to systematically assess the pioneering pre-service English teachers' perceived competencies content skills, pedagogical skills, and work-related skills, as well as their overall work-readiness. This approach allowed for quantifying subjective data, such as self-perceived competencies and work-readiness, enabling the analysis of relationships between variables, including the extent to which competencies may predict perceived work-readiness. Thus, this method provides a foundation for generating statistically significant and practically relevant insights for curriculum development and educational support programs.

The study involved all 43 pioneer graduates of the BSEd-English program in CTU who graduated last academic year 2022-2023. The participants were informed of the study through their professor via a Google Form link to a researcher-designed survey questionnaire, reflecting the university's adoption of a hybrid-flexible modality. The first section of the survey questionnaire collected information on the respondents' demographic data, including gender, age, type of student, and parents' combined monthly income. The respondents' profiles are summarized in Table 1. It reveals that 36 or 84% of the respondents were female, with only 7 or 16% males. The majority, or 58%, were 22 years old, and 30% were 23 years old. Full-time students comprised 81% of the total, while 14% were working students. Regarding parental income, 56% reported a combined monthly income of less than 5,000 pesos, while 26% fell within the 5,000-10,000-peso range.

The second section of the questionnaire consisted of a 70-item scale divided into two main parts. The first part focused on students' perceptions of three core competencies for pre-service teachers: content knowledge, pedagogy, and work-related skills. The work-related skills included four sub-competencies aligned with the 4C's of the 21st century: communication, collaboration, critical thinking, and creativity. Participants rated their level of agreement or disagreement with various statements by utilizing a 4-point Likert scale ranging from strongly disagree (1) to strongly agree (4). Each competency comprised ten items, and the questionnaire items were developed and validated for content by a panel of faculty experts specializing in teacher professional development and English language instruction. The scale demonstrated a high level of internal consistency, as indicated in the following Cronbach's alpha values: content (α =0.98), pedagogy (α =0.99), communication (α =0.96), collaboration (α =0.98), critical thinking (α =0.97), and creativity (α =0.97), as well as the perceived level of work-readiness (α =0.96).

Data analysis was conducted using the SPSS 26 statistical package. Descriptive statistics, including frequencies and percentage distributions, were employed to summarize the demographic variables. Rating scales for the mean included strongly agree (3.26-4.00), agree (2.51-3.25), disagree (1.76-2.50), and strongly disagree (1.00-1.75). Regression analysis was applied to explore the relationship between the competencies as predictor variables and the perceived work-readiness as the outcome variable among pre-service English graduates.

Demographic	Category	Frequency (n=43)	Percentage (%)
Gender	Male	7	16
	Female	36	84
Age	21	4	9
-	22	25	58
	23	13	30
	25	1	2
Type of student	Full-time student	35	81
	Part-time student	2	5
	Working student	6	14
Parents combined	Less than 5,000	24	56
monthly income	5,000-10,000	11	26
	10,001-20,000	5	12
	20,001-30,000	1	2
	30,001-40,000	1	2
	More than 50,000	1	2

3. RESULTS AND DISCUSSION

This section presents survey findings on BSEd English graduates' competencies and work readiness. Data on perceived competencies in content knowledge, pedagogical skills, and core competencies are

summarized with descriptive statistics to provide a quantitative view of the results, ensuring that trends and variations in responses are clearly represented. To enhance reliability, results are cross-referenced with existing literature, providing a benchmark that supports and contextualizes the findings, thereby strengthening the validity of the conclusions.

3.1. Content knowledge skills

Table 2 shows pre-service teachers' perceived content knowledge competency, with an overall mean of 2.81 (sd=0.72), and the highest agreement is in the skill of demonstrating English content knowledge, with a weighted mean of 2.93 (sd=0.70). Content knowledge in English includes a comprehensive understanding of the language's structure and proficiency in usage [29]. This skill is essential for pre-service teachers since English is both the subject and instructional medium. However, despite positive self-assessment in this study, pre-service teachers often struggle to apply this knowledge, suggesting curriculum gaps that may hinder effective teaching and outcomes in English education [30].

Additionally, pre-service teachers report the lowest confidence in their content knowledge of the Philippine professional teacher standards (PPST) framework, with a weighted mean of 2.72 (sd=0.72). PPST is crucial in driving initiatives to enhance teacher quality from pre-service to in-service training. Increased awareness of this framework is essential for pre-service teachers, as it encourages reflection on professional growth, the development of effective teaching practices, and active engagement in their roles as educators.

Table 2. Perceived competency in content knowledge

No.	Indicator	Weighted mean	sd	Category
1.	I demonstrate content knowledge in English	2.93	0.70	Agree
2.	I demonstrate content knowledge in general education	2.86	0.71	Agree
3.	I demonstrate content knowledge in research	2.70	0.71	Agree
4.	I demonstrate content knowledge in professional education	2.84	0.75	Agree
5.	I demonstrate knowledge of the principles of learning	2.79	0.71	Agree
6.	I demonstrate knowledge of the principles of teaching	2.84	0.78	Agree
7.	I demonstrate knowledge in using technology in teaching	2.88	0.79	Agree
8.	I demonstrate knowledge in junior high school's most essential learning competencies (MELCs)	2.77	0.68	Agree
9.	I demonstrate knowledge of basic education policies	2.79	0.71	Agree
10.	I demonstrate knowledge of the Philippine professional teacher standards (PPST)	2.72	0.70	Agree
	Overall	2.81	0.72	Agree

3.2. Pedagogical skills

Table 3 highlights pre-service teachers' perceived competencies in pedagogy, which shows a weighted mean of 2.99 (sd=0.90). Building rapport with students is rated highest within this category, with a weighted mean of 2.93 (sd=0.70), underscoring the importance of relationship-building in effective teaching. Establishing a relationship between students and teachers helps inspire and motivate educators to express innovative teaching methods and reassess their concepts [31]. This develops a positive connection with students, enhancing their motivation and leading to greater engagement and academic success. Pre-service teachers must learn to cultivate a supportive rapport with their students to create a classroom environment that enhances learning and addresses their emotional and educational needs.

Table 3. Perceived competency in pedagogical skills

No.	Indicator	Weighted mean	sd	Category
1.	I know how to make a lesson plan in English	3.05	0.92	Agree
2.	I know how to make learning activities for junior high school English classes	3.02	0.94	Agree
3.	I know how to make assessment tasks	2.91	0.95	Agree
4.	I know how to make language learning instructional materials	2.88	0.91	Agree
5.	I know how to deliver a lesson in front of a group of students	2.98	0.99	Agree
6.	I know how to express my ideas in English	2.93	0.88	Agree
7.	I know how to write reports in English	3.05	0.87	Agree
8.	I know how to build rapport with students	3.09	0.89	Agree
9.	I know the art of questioning	2.95	0.87	Agree
10.	I know how to respond to questions	3.00	0.87	Agree
	Overall	2.99	0.90	Agree

Interestingly, despite general confidence in pedagogical skills, making assessment tasks was the lowest perceived skill, with a weighted mean score of 2.91 (sd=0.95). In Yetkin and Özer [32], both teachers and pre-service teachers are strongly willing to use assessment to support language learning and the teaching

process. However, according to Moges [33], teachers' challenges in effectively employing classroom assessment identified issues in insufficient resources, deficiency of instructional materials, inadequate support, lack of knowledge and skills, and limited time for assessment. Furthermore, as highlighted in the study by Jaelani and Umam [34], pre-service teachers often lack exposure to authentic materials and evaluation methods, resulting in difficulties in developing assessment tasks.

3.3. Communication skills

Table 4 shows that pre-service teachers report high agreement on their communication competencies with a weighted mean of 2.89 (sd=0.81). The highest-rated skill is speaking with a positive tone and correct volume, scoring a weighted mean score of 3.00 (sd=0.93). Effective communication, particularly vocal modulation and clarity, is essential for English teachers to support students' language abilities. Pre-service teachers must realize that the tone of voice significantly affects listeners, as a harsh tone can create a sense of control, leading to feelings of pressure and disengagement and often resulting in negative emotions like fear or anger [25].

TC 11 4	D ' 1	1 1 0	• ,•	1 '11
Lable 4	Perceived	level of	communication	CV1IIC
I auto T.	1 CICCIVCU		Communication	SKIIIS

No.	Indicator	Weighted mean	sd	Category
1.	I can speak my thoughts clearly.	2.91	0.72	Agree
2.	I can use the appropriate professional language.	2.88	0.70	Agree
3.	I am skillful in expressing my thoughts in speaking and writing.	2.74	0.85	Agree
4.	I am an active listener.	2.95	0.87	Agree
5.	I can speak confidently.	2.79	0.77	Agree
6.	I maintain proper eye contact when speaking.	2.88	0.88	Agree
7.	I display courteous facial expressions.	2.95	0.90	Neither
8.	I speak with a positive tone and correct volume.	3.00	0.93	Agree
9.	I convey my ideas to others without fidgeting.	2.86	0.74	Agree
10.	I maintain the appropriate space between myself and the people I talk to.	2.95	0.72	Agree
	Overall	2.89	0.81	Agree

In addition, technological advancements in education have encouraged students to use digital tools to enhance their speaking skills. Research indicates that while students' video presentations may contain grammatical errors, their voice modulation, eye contact, and body language are often commendable [35]. This suggests that teacher training could benefit from a dual focus: strengthening assessment skills with practical strategies and improving communication through digital tools. This approach could equip pre-service teachers with technical and interpersonal skills to effectively engage students.

However, expressing thoughts in both speaking and writing has the lowest weighted mean of 2.74 (sd=0.85). Writing, a crucial skill for articulating ideas, often challenges students due to cognitive factors, like perspective and language transfer, and linguistic issues, such as grammar and vocabulary [36]. Despite students' strong speaking and listening skills, one challenge is their communication apprehension, which frequently limits pre-service teachers' confidence, affecting their ability to connect with students [37]. This suggests that training programs need targeted support to develop expressive language skills and manage communication anxiety. Structured practice in both verbal and written expression, paired with tools to reduce apprehension, could improve pre-service teachers' overall communication competency.

3.4. Collaboration skills

Table 5 presents pre-service teachers' perceived collaboration skills, with an overall weighted mean of 2.99 (sd=0.83). The highest-rated skill is the willingness to learn from colleagues, with a weighted mean of 3.26 (sd=0.88). Through their interactions and learning within peer groups, pre-service teachers exemplify society's essence. They acquire knowledge and create a supportive environment that enhances deeper self-awareness, peer relationships, and engagement, which is crucial for the teaching profession [38]. Such connections can lead to active engagement and the pursuit of exceptional outcomes that are important in the teaching profession.

Conversely, group leadership skills had the lowest weighted mean of 2.84 (sd=0.87), indicating a potential gap in teacher preparation. This raises concerns about pre-service teachers' readiness for classroom leadership and retention in the profession. As found in previous study by Genç [39], in-service EFL educators have noted challenges during practicum due to a lack of mentoring in leadership and expertise. This resulted in insufficient leadership capabilities in classroom management, leading some to leave the teaching profession [40]. Enhancing teacher preparation programs with leadership training modules could help equip future teachers with essential skills for positive classroom management and collaboration.

Table 5. Perceived level of collaboration skills

No.	Indicator	Weighted mean	sd	Category
1.	I can cooperate when in a group.	3.12	0.91	Agree
2.	I can work with diverse groups of people.	3.12	0.85	Agree
3.	I can identify organizational strategies and processes.	2.88	0.82	Agree
4.	I know to keep an open line of communication among administrators	2.91	0.87	Agree
	and colleagues.			
5.	I am willing to learn from colleagues.	3.26	0.88	Strongly agree
6.	I can easily establish trust and rapport in a group.	2.93	0.83	Agree
7.	I can address conflict management styles.	2.91	0.84	Agree
8.	I can prioritize tasks and schedules to meet organizational deadlines.	3.02	0.74	Agree
9.	I can maintain tolerance when exposed to different ideas and cultures.	2.93	0.83	Agree
10.	I can lead a group.	2.84	0.87	Agree
	Overall	2.99	0.84	Agree

3.5. Critical thinking skills

Table 6 shows the pre-service teachers perceived critical thinking skills, with an overall weighted mean of 2.74 (sd=0.74). The highest-rated skill for this competency is the passion for researching information and strategies, with a weighted mean of 3.81 (sd=0.91), reflecting the university's emphasis on research and development integrated into the curriculum. Research courses in teacher education programs primarily aim to develop resilient, inquiry-oriented teachers who reflect on their own teaching practices, engage in literature, and operate in inquiry-based environments [41]. Consequently, teachers who adopt an inquiry-based approach develop a habit of inquiry both in the classroom and in school. This habit fosters critical thinking, curiosity, and willingness to share insights among teachers for continuous professional growth [42].

Despite a strong inclination toward research, the pre-service teachers' skills related to quantitative tools—such as arithmetic, graphs, and statistics—received the lowest weighted mean of 2.58 (sd=0.66). Difficulty interpreting tables and graphs highlights gaps in numeracy literacy [43], which is essential for analyzing information to generate a reliable conclusion. Proficiency in numeracy literacy will enable students to interpret information in various formats, including narratives, tables, graphics, and other visual data. These findings suggest that the curriculum could be enhanced by integrating quantitative reasoning and statistical literacy, equipping teachers with a more comprehensive critical thinking toolkit for data analysis and informed decision-making.

Table 6. Perceived level of critical thinking skills

	Table 6. I electived level of critical tilliking skins									
No.	Indicator	Weighted mean	sd	Category						
1.	I have the knowledge and skills to solve specific problems.	2.84	0.75	Agree						
2.	I can analyze complex problems and issues.	2.77	0.75	Agree						
3.	I am skillful and knowledgeable in using suitable technology.	2.74	0.79	Agree						
4.	I understand textual and numerical data for a job manual.	2.60	0.76	Agree						
5.	I can generate new and bright ideas to address problems.	2.86	0.77	Agree						
6.	I am passionate about researching more information and strategies.	2.91	0.72	Agree						
7.	I can easily understand organizational procedures.	2.74	0.69	Agree						
8.	I am confident in performing tasks using computer software and hardware.	2.67	0.71	Agree						
9.	I can use and interpret quantitative tools (arithmetic, graphs, and statistics).	2.58	0.66	Agree						
10.	I can share logical ideas and solutions in various mediums.	2.70	0.74	Agree						
	Overall	2.74	0.74	Agree						

3.6. Creative skills

Table 7 shows the pre-service teachers perceived creative skills, with an overall weighted mean of 2.99 (sd=0.76). Awareness of one's thoughts when doing something has the highest weighted mean of 3.09 (sd=0.87), emphasizing the importance of metacognitive thinking in creative development [44]. Metacognition involves awareness, monitoring, and maximizing one's potential, which supports excellence in creativity. The creative potential may be underutilized without strong metacognitive skills, resulting in lower creative output [45]. Teachers with developed creative self-awareness are more likely to integrate creative thinking into their teaching, enhancing students' learning experiences.

However, the study highlights two areas of low confidence for pre-service teachers: finding innovative solutions under time constraints and seeking new technologies and techniques for creative outputs, with a weighted mean of 2.91 (sd=0.65) and 2.91 (sd=0.75). Time constraints in classrooms often hinder technology integration, leading to insufficient lesson preparations, content-heavy syllabi, and conventional assessments that limit creative teaching approaches [46]. These overwhelming challenges may often lead to the abandonment or lack of technology use, which hinders students' intended learning outcomes.

Table 7. Perceived level of creative skills

No.	Indicator	Weighted mean	sd	Category
1.	I am aware of my thoughts when I do something.	3.09	0.87	Agree
2.	I can take the initiative to create original ideas.	3.02	0.80	Agree
3.	I am capable of coping with multiple tasks.	3.05	0.82	Agree
4.	I can think of new ways of creating something with quality.	3.07	0.74	Agree
5.	I can approach problems logically and rationally.	2.93	0.77	Agree
6.	I can find innovative solutions in time-pressured situations.	2.91	0.65	Agree
7.	I can easily come up with practical solutions to improve performance.	2.95	0.75	Agree
8.	I can look for new technologies and techniques to produce outputs.	2.91	0.75	Agree
9.	I can visualize concepts.	3.05	0.72	Agree
10.	I develop appropriate plans and timelines to implement new ideas.	2.95	0.72	Agree
	Overall	2.99	0.76	Agree

Despite understanding the value of technology, many pre-service teachers in the English language feel unprepared to fully utilize its potential due to limited emphasis on teacher training programs. They often lack methods for addressing diverse student needs and learning styles through technology-enhanced content and pedagogy [47]. Some of these pre-service teachers were able to identify only a few basic applications of technology that could improve listening skills, pronunciation, and vocabulary development.

In addition, graduates often revert to traditional methods in ELT despite being trained in modern teaching techniques and technology integration. During their teaching practicum, they tend to replicate the methods used by supervising teachers rather than apply modern methodologies [48]. These findings suggest that teacher preparation programs could benefit from incorporating time-management strategies and providing greater support for technology integration. This would enable pre-service teachers to better harness creative skills and enhance engagement with innovative teaching practices.

The results of the study on perceived competencies of BSEd English graduates reveal valuable insights into their strengths and potential areas for improvement in readiness for teaching. Pedagogy emerges as one of the highest-rated competencies, with a weighted mean score of 2.99, indicating that graduates generally possess reasonable confidence in their teaching methods. However, the relatively high standard deviation of 0.90 implies variability in their self-assessment, with some graduates feeling well-prepared while others do not. This variation may indicate inconsistencies in their training or practical teaching experience, suggesting a need for more standardized, hands-on teaching practices within the program to ensure all graduates attain a comparable level of readiness.

Creative skills also rank among the most highly valued competencies, with graduates expressing confidence in incorporating creativity into teaching. To strengthen this competency, the program could integrate digital tools and interactive learning strategies into the curriculum. By doing so, they will likely be more effective in creating lessons that are not only engaging but also more relevant to students' everyday lives and technological fluency. Similarly, collaboration skills, which also share the highest rank, indicate that graduates feel equipped to work well with colleagues in collaborative settings. However, the moderate standard deviation of 0.84 suggests that some graduates may perceive themselves as less prepared. To promote a more uniform level of competency, an increased emphasis on group-based assignments and cooperative projects could help ensure a more consistent level of competency among graduates.

Communication skills rank slightly lower with a weighted mean of 2.89, indicating that while graduates generally feel equipped, there remains potential for enhancement in this fundamental teaching competency. Implementing additional workshops focused on presentation skills, public speaking, and the clear articulation of complex ideas could bolster graduates' confidence and effectiveness in classroom communication. Meanwhile, content knowledge, which has a weighted mean of 2.81, is ranked fifth, indicating a slightly lower confidence in English subject mastery compared to other areas. Since a solid understanding of content is crucial for effective teaching, this may suggest a need for more rigorous content-based coursework or assessments that encourage a deeper understanding of the English language and literature.

Finally, critical thinking skills have the lowest weighted mean of 2.74, indicating that graduates possess the least confidence in this competency. Although the result of the case study [20] revealed the need to improve creativity among pre-service teachers, it also highlighted their inadequate performance in critical thinking, which needs proper attention. An important factor causing this low performance is the curriculum that they have experienced, which primarily focuses on achieving high scores rather than developing the students' ability to ask questions. Critical thinking is vital not only for mastering content but also for effective problem-solving and adapting teaching strategies to diverse classroom scenarios. To address this gap, the program could integrate more case studies, reflective assignments, and problem-solving activities that challenge students to analyze and evaluate various educational scenarios and teaching methods. While BSEd English graduates demonstrate confidence in pedagogy, creativity, and collaboration, the findings

indicate a need for a more balanced skill set, particularly in content knowledge and critical thinking. These results can inform curriculum adjustments, ensuring that graduates develop a consistent and well-rounded skill set aligned with the demands of the teaching profession. By addressing these gaps, the program can produce graduates who are better equipped to navigate the complex demands of teaching.

3.7. Work-readiness

Table 8 presents the pre-service English teachers' perceived work-readiness, with an overall weighted mean of 2.93 (sd=0.82). Notably, establishing a rapport with students emerges as the most salient skill, aligning also with the highest-rated pedagogical competency. Pre-service teachers view positive student-teacher relationships as a primary priority across educational settings. According to Xie and Derakhshan [49], developing rapport with students can significantly enhance student learning outcomes. Strong relationships with students encourage collaborative engagement and promote shared goals between students and teachers [50]. Pre-service teachers emphasize the significance of these connections to understanding academic engagement, which is closely linked to improved achievement, greater retention, and overall academic success in their future teaching profession.

Table 8. Perceived level of work-readiness

No.	Indicator	Weighted mean	Sd	Category
1.	I am ready to accept a teaching job anytime.	2.98	0.89	Agree
2.	I am familiar with the skills required by the teaching profession.	2.81	0.88	Agree
3.	I am aware of the employability skills I need to improve.	2.93	0.88	Agree
4.	I have the needed skills for the teaching job.	2.88	0.79	Agree
5.	I am informed of the preparations for teaching a school.	2.91	0.78	Agree
6.	I am confident about my knowledge and skills in teaching	2.79	0.71	Agree
7.	I know how to establish rapport with students.	3.05	0.72	Agree
8.	I know how to make a lesson plan.	3.02	0.89	Agree
9.	I have the communication skills to teach well.	2.98	0.83	Agree
10.	I am aware of the Code of Ethics for teachers.	2.91	0.84	Agree
	Overall	2.93	0.82	Agree

Despite their ability to connect with future students, pre-service teachers have the lowest confidence in their knowledge and skills in teaching, with a weighted mean of 2.79 (sd=0.71). In Tran [51], pre-service English educators feel unprepared for teaching due to factors like insufficient knowledge and skills, language barriers, lack of experience with diverse student groups, and certain personality traits that may impact their teaching capabilities. To adequately equip pre-service English teachers to work effectively with learners, they must be engaged with research-based instructional methods rather than relying solely on lectures and textbooks [52]. Teacher education programs that integrate coursework with practical field experiences have proven to be highly effective in preparing service teachers. Emphasizing instructional methods is crucial to help pre-service teacher candidates become more linguistically proficient and confident in their ability to support students. These findings suggest that teacher curricula could enhance pre-service teachers' work-readiness by prioritizing practical skill development, reflection, and mentorship to support them in building both the confidence and competence needed to succeed in teaching.

A regression analysis was conducted to determine if the content, pedagogy, 4Cs competencies predict the pre-service teachers' work-readiness. Table 9 shows that 93.3% of the variance is explained by the six predictors, F(6.36)=99.079, p<0.05. The results identified that pedagogy, communication, and critical thinking have positive coefficients in all skills. The pedagogy (β =0.444, t=3.465, p=0.001) and the two 21st-century skills, communication (β =0.281, t=2.366, p=0.023), and critical thinking (B=0.195, t=2.055, p=0.047) are positively associated with the pre-service teachers' work readiness. The findings suggest that as the value of pre-service teachers' pedagogical, communication, and critical thinking skills increases, their work-readiness also tends to increase.

Pedagogy positively impacts students' employability, suggesting the importance of designing teaching materials that incorporate students' abilities, such as adaptable course content and teaching models. This approach aims to prepare the pre-service teachers' future careers, moving beyond rote memorization of the curriculum [53]. Teacher education programs are pivotal in developing 21st-century skills in pre-service teachers' daily practices, setting high expectations for the quality of program graduates [54]. Effective teacher training should equip graduates with the competencies to implement modern pedagogical methods. The employability challenges faced by graduates are often linked to gaps in their pedagogical skills, which are hindered by insufficient training time and a lack of focus on essential competencies for teaching [55]. Thus, pre-service teachers must develop and assess their pedagogical skills to meet educational demands effectively and create a supportive environment that prepares them for the profession.

3220 ISSN: 2252-8822

Table 9. Regression analysis with graduates' work-readiness as the criterion variable

Predictor	B SE		95%	6 CI	0	4	
Predictor	Ь	SE	Lower bound	Upper bound	β	ι	p
Intercept	0.007	0.136			0.053	0.053	0.958
Content	0.058	0.075	-0.093	0.210	0.056	0.784	0.438
Pedagogy	0.280	0.081	0.116	0.444	0.349	3.465	0.001*
Communication	0.286	0.121	0.041	0.531	0.281	2.366	0.023*
Collaboration	0.080	0.084	-0.091	0.251	0.089	0.947	0.350
Critical thinking	0.209	0.102	0.003	0.416	0.195	2.055	0.047*
Creativity	0.093	0.110	-0.129	0.315	0.091	0.849	0.401

Note: R²=93.3%; F (6,36)=99.079, *p<0.05

The result also emphasizes the positive correlation between communication, critical thinking skills, and employability. The document analysis and expert interview results in Piad *et al.* [56] identified communication and critical thinking skills as one of the various constructs and dimensions of employability skills among graduates, which were found to be predictors of job performance. Nowadays, employers do not only anticipate graduates to have technical and discipline-specific competencies but also demand a diverse set of skills and attributes. In Jasak *et al.* [57], critical thinking and communication skills are also regarded as integral soft skills that significantly contribute to the work-readiness of students.

Moreover, effective interpersonal communication has been identified as a significant predictor of a graduate's work readiness, enhancing their adaptability, conflict resolution skills, and preparedness for job-related challenges [58]. Likewise, Khan [59] also indicates that communication skills, which encompass writing and presentation abilities, are identified as important constructs of employability. Various employers also emphasized that the soft skills of graduates hold greater importance than their hard and subject-specific skills. Furthermore, strong communicative abilities develop positive interactions with colleagues and create a supportive work environment, which in turn promotes motivation, job satisfaction, and a sense of belonging.

Critical thinking skills also significantly impact the students' work-readiness, which implies that curriculum enhancements should be considered to align with market demands [60]. Future educators should integrate interdisciplinary knowledge into teaching, enhance essential learning materials, and incorporate real-world and application-based assessments. Employers are now placing greater importance on critical thinking in the workplace for its strong correlation skills with job-proof skills [61]. They recognized this skill as essential not only for graduates' future employment but also for shaping responsible citizens in an increasingly complex world, particularly with the potential rise of artificial intelligence (AI) and employment polarization driven by technological advancements and globalization.

4. CONCLUSION

The findings of this study reflect the positive perceptions of the pioneering BSEd English graduates regarding their competencies in content, pedagogy, and essential 21st-century skills, namely 4Cs. Although the graduates demonstrate confidence in pedagogy, creativity, and collaboration, the results indicate a need for a more balanced competency profile, particularly in content knowledge and critical thinking. This information can be utilized to refine the curriculum, thereby ensuring graduates develop a consistent and holistic skill set that aligns with the demands of the teaching profession. The results also underscore notable practices and skills acquired through the graduates' pre-service training, providing insight into the strength of their educational experiences within the curricular program. Furthermore, these findings align with existing research, which emphasizes the importance of consistent practice in these competencies to ensure career readiness and adaptability in professional environments. The regression analysis further indicates that competencies in pedagogy, communication, and critical thinking competencies can be used as a significant predictor of their work readiness. These suggest that higher proficiency and increased practice of these competencies are closely associated with a greater preparedness for the workforce.

In conclusion, assessing the competencies of the pioneering graduates as indicators of work readiness is crucial for understanding their outcomes and for identifying areas where curriculum adjustments can better support future cohorts. By focusing on these competencies and key predictors such as pedagogy, communication, and critical thinking, the administrators and curriculum implementers of the BSEd English program gain valuable insights into both the strengths and areas for improvement within their training programs. The results not only highlight which skills are effectively imparted but also identify competencies that require further reinforcement to meet workforce demands. This suggests a need to continuously strengthen the program's quality of instruction, enhance learning experiences, and refine practice teaching opportunities to better support the acquisition of these competencies. Further studies on graduates' learning experiences and licensure exam performance would provide deeper insights into program effectiveness. This

approach not only promotes the personal and professional growth of graduates but also strengthens the overall quality and adaptability of future professionals, ensuring they are well-prepared to meet the challenges of the evolving workforce.

ACKNOWLEDGEMENTS

The authors would like to express their profound gratitude to the referees for their valuable insights and to CTU, through the office of the vice president for research and development, who made this research possible. Special thanks are also extended to the English teachers and the pioneer graduates of the BSEd major in English for their significant contributions to the success of this study.

FUNDING INFORMATION

Authors state no funding was involved in the conduct of this research.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Cristie Ann L. Jaca	✓	✓		✓	\checkmark	✓	✓	✓	✓	✓		✓	✓	
Wilson D. Castañeda Jr.	\checkmark	\checkmark	✓			\checkmark		\checkmark	✓	\checkmark	✓	\checkmark		
C : Conceptualization		I : Investigation					Vi : Visualization							
M: Methodology		R: Resources					Su: Supervision							
So: Software		D : D ata Curation				P : Project administration								
Va: Validation		O: Writing - O riginal Draft				Fu: Fu nding acquisition								
Fo · Formal analysis		1	E • v	Vriting -	Reviev	v & E	litino				Č	•		

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

DATA AVAILABILITY

The data that support the findings of this study are available on request from the corresponding author [CALJ]. The data, which contain information that could compromise the privacy of research participants, are not publicly available due to certain restrictions.

REFERENCES

- [1] I. Römgens, R. Scoupe, and S. Beausaert, "Unraveling the concept of employability, bringing together research on employability in higher education and the workplace," *Studies in Higher Education*, vol. 45, no. 12, pp. 2588–2603, Dec. 2020, doi: 10.1080/03075079.2019.1623770.
- [2] A. García-Aracil, S. Monteiro, and L. S. Almeida, "Students' perceptions of their preparedness for transition to work after graduation," *Active Learning in Higher Education*, vol. 22, no. 1, pp. 49–62, Mar. 2021, doi: 10.1177/1469787418791026.
- [3] R. A. Siregar, "The effective 21st-century pedagogical competence as perceived by pre-service English teachers," *Pedagogy: Journal of English Language Teaching*, vol. 8, no. 1, pp.1–12, May 2020, doi: 10.32332/pedagogy.v8i1.1953.
- [4] D. Kösal and Ö. G. Ulum, "Pre-service EFL teachers' conceptions of language proficiency: entry and exit level qualifications," Dil ve Dilbilimi Çalışmaları Dergisi, vol. 15, no. 2, pp. 484–495, Jul. 2019, doi: 10.17263/jlls.586144.
- [5] P. Kuswandono, "Voices of pre-service English teachers: reflecting motivations during practicum learning," *TEFLIN Journal: A Publication on the Teaching & Learning of English*, vol. 25, no. 2, pp. 185–202, 2014.
- [6] R. Pusparini, U. Widiati, and A. Susanti, "Pre-service teachers' beliefs about English language teaching and learning in EFL classroom: a review of literature," *JEES (Journal of English Educators Society)*, vol. 6, no. 1, pp. 147–154, Apr. 2021, doi: 10.21070/jees.v6i1.1212.
- [7] C. Atar, S. Aydın, and H. Bağcı, "An investigation of pre-service English teachers' level of technopedagogical content knowledge," *Dil ve Dilbilimi Çalışmaları Dergisi*, vol. 15, no. 3, pp. 794–805, Oct. 2019, doi: 10.17263/jlls.631517.
- [8] M. Clarke, "Rethinking graduate employability: the role of capital, individual attributes and context," Studies in Higher Education, vol. 43, no. 11, pp. 1923–1937, Nov. 2018, doi: 10.1080/03075079.2017.1294152.
- [9] A. A. Woya, "Employability among statistics graduates: graduates' attributes, competence, and quality of education," Education

- Research International, vol. 2019, no.1, p.7285491, Jan. 2019, doi: 10.1155/2019/7285491.
- [10] N. Fajaryati, Budiyono, M. Akhyar, and Wiranto, "The employability skills needed to face the demands of work in the future: systematic literature reviews," *Open Engineering*, vol. 10, no. 1, pp. 595–603, Jul. 2020, doi: 10.1515/eng-2020-0072.
- [11] M. V Tutor, A. C. Orbeta, J. M. B. Miraflor, and B. Mathew, *The 4th Philippine graduate tracer study: examining higher education as a pathway to employment, citizenship, and life satisfaction from the learner's perspective.* Manila: Philippine Institute for Development Studies, 2021.
- [12] H. Bedir, "Pre-service ELT teachers' beliefs and perceptions on 21st Century learning and innovation skills (4Cs)," Dil ve Dilbilimi Calışmaları Dergisi, vol. 15, no. 1, pp. 231–246, Apr. 2019, doi: 10.17263/jlls.547718.
- [13] A. A. Ikromova, "The concept of pedagogical skills, its role and importance in teaching," *The American Journal of Applied Sciences*, vol. 2, no. 8, pp. 122–126, Aug. 2020, doi: 10.37547/tajas/Volume02Issue08-17.
- [14] M. S. Ozturk, M. Kinik, and M. U. Ozturk, "Investigation of technological pedagogical and content knowledge (TPACK) competencies of university students," *International Journal of Technology in Education*, vol. 6, no. 3, pp. 418–433, Aug. 2023, doi: 10.46328/ijte.524.
- [15] S. A. A. Ismail and A. M. Jarrah, "Exploring pre-service teachers' perceptions of their pedagogical preferences, teaching competence and motivation," *International Journal of Instruction*, vol. 12, no. 1, p. 493, 2019, doi: 10.29333/iji.2019.12132a.
- [16] E. Tohani and I. Aulia, "Effects of 21st Century learning on the development of critical thinking, creativity, communication, and collaboration skills," *Journal of Nonformal Education*, vol. 8, no. 1, pp. 46–53, 2022.
- [17] A. P. Astuti, A. Aziz, S. S. Sumarti, and D. A. L. Bharati, "Preparing 21st Century teachers: implementation of 4C character's pre-service teacher through teaching practice," *Journal of Physics: Conference Series*, vol. 1233, no. 1, p. 012109, Jun. 2019, doi: 10.1088/1742-6596/1233/1/012109.
- [18] S. R. Khambayat, "Developing effective communication skills in students," Scholarly Research Journal for Interdisciplinary Studies, vol. 4, no. 37, pp. 8799–8817, Dec. 2017, doi: 10.21922/srjis.v4i37.10829.
- [19] E. Care, C. Scoular, and P. Griffin, "Assessment of collaborative problem solving in education environments," Applied Measurement in Education, vol. 29, no. 4, pp. 250–264, Oct. 2016, doi: 10.1080/08957347.2016.1209204.
- [20] F. Fahmi et al., "Discovery learning method for training critical thinking skills of students," European Journal of Education Studies, vol. 6, no. 3, pp. 342–351, 2019.
- [21] Z. Yan, "English as a foreign language teachers' critical thinking ability and L2 students' classroom engagement," Frontiers in Psychology, vol. 12, p. 773138, Nov. 2021, doi: 10.3389/fpsyg.2021.773138.
- [22] H. Long and J. A. Plucker, "Assessing creative thinking: practical applications," in *The Routledge International Handbook of Research on Teaching Thinking*, 1st ed., R. Wegerif, L. Li, and J. C. Kaufman, Eds., London: Routledge, 2015, pp. 315–329.
- [23] S. M. Ritter and N. Mostert, "Enhancement of creative thinking skills using a cognitive-based creativity training," *Journal of Cognitive Enhancement*, vol. 1, no. 3, pp. 243–253, Sep. 2017, doi: 10.1007/s41465-016-0002-3.
- [24] S. Sunardi and F. Doringin, "The 4Cs learning model in teacher professional development program," *Humaniora*, vol. 11, no. 2, pp. 151–157, Jul. 2020, doi: 10.21512/humaniora.v11i2.6508.
- [25] B. Vrijders, N. Weinstein, S. Paulmann, B. Soenens, J. Waterschoot, and M. Vansteenkiste, "Your prosody matters! The effect of controlling tone of voice on listeners' experienced pressure, closeness, and intention to collaborate with the speaker," *Motivation Science*, vol. 11, no. 1, pp. 49–66, Mar. 2025, doi: 10.1037/mot0000357.
- [26] D. Varas, M. Santana, M. Nussbaum, S. Claro, and P. Imbarack, "Teachers' strategies and challenges in teaching 21st century skills: little common understanding," *Thinking Skills and Creativity*, vol. 48, Jun. 2023, doi: 10.1016/j.tsc.2023.101289.
- [27] F. Ghorbandordinejad and A. M. A. Almarfi, "Assessing Turkish preservice English teachers' 21st Century skills," *JETLi: Journal of English Teaching and Linguistics*, vol. 4, no. 2, pp. 83–95, 2023.
- [28] L. Jackson, "The smiling philosopher: emotional labor, gender, and harassment in conference spaces," Educational Philosophy and Theory, vol. 51, no. 7, pp. 693–701, Jun. 2019, doi: 10.1080/00131857.2017.1343112.
- [29] D. L. Banegas, "Teacher professional development in language-driven CLIL: a case study," *Latin American Journal of Content & Language Integrated Learning*, vol. 12, no. 2, pp. 242–264, May 2020, doi: 10.5294/laclil.2019.12.2.3.
 [30] J. Bale, "Language proficiency in an era of accountability," *Journal of Teacher Education*, vol. 67, no. 5, pp. 392–407, Nov.
- [30] J. Bale, "Language proficiency in an era of accountability," Journal of Teacher Education, vol. 67, no. 5, pp. 392–407, Nov. 2016, doi: 10.1177/0022487116667196.
- [31] Y. Meng, "Fostering EFL/ESL students' state motivation: the role of teacher-student papport," Frontiers in Psychology, vol. 12, p. 754797, Sep. 2021, doi: 10.3389/fpsyg.2021.754797.
- [32] R. Yetkin and Z. Özer, "An investigation into in-service and pre-service English teachers' conception of assessment," *Kuramsal Eğitimbilim*, vol. 13, no. 2, pp. 384–396, Apr. 2020, doi: 10.30831/akukeg.582886.
- [33] B. Moges, "The implementations and challenges of assessment practices for students' learning in public selected universities, Ethiopia," *Universal Journal of Educational Research*, vol. 6, no. 12, pp. 2789–2806, 2018, doi: 10.13189/ujer.2018.061213.
- [34] A. Jaelani and A. Umam, "Preparing EFL pre-service teachers for curriculum 2013 through authentic materials and assessment integration," *JEES (Journal of English Educators Society)*, vol. 6, no. 1, pp. 171–177, Apr. 2021, doi: 10.21070/jees.v6i1.829.
- [35] S. Indriani, "Utilizing a recorded-video to assess speaking and presentation skills of pre-service teachers," *Scholaria: Jurnal Pendidikan dan Kebudayaan*, vol. 10, no. 1, pp. 60–65, Jan. 2020, doi: 10.24246/j.js.2020.v10.i1.p60-65.
- [36] S. Bulqiyah, M. A. Mahbub, and D. A. Nugraheni, "Investigating writing difficulties in essay writing: Tertiary students' perspectives," *English Language Teaching Educational Journal*, vol. 4, no. 1, pp. 61–73, 2021, doi: 10.12928/eltej.v4i1.2371.
- [37] M. Seitova and L. Khazykhanyzy, "Pre-service English teachers' beliefs on readiness of teaching speaking skills," Iasaýi ýniversutetiniń habarshysy, vol. 130, no. 4, pp. 290–305, Dec. 2023, doi: 10.47526/2023-4/2664-0686.24.
- [38] J.-C. Tu and K.-H. Chu, "Analyzing the relevance of peer relationship, learning motivation, and learning effectiveness—design students as an example," Sustainability, vol. 12, no. 10, p. 4061, May 2020, doi: 10.3390/su12104061.
- [39] Z. S. Genç, "More practice for pre-service teachers and more theory for in-service teachers of English language," Procedia -Social and Behavioral Sciences, vol. 232, pp. 677–683, Oct. 2016, doi: 10.1016/j.sbspro.2016.10.092.
- [40] B. Glisson and J. Skelton, "Leadership skills of pre-service teachers and career teachers: a quasi-experimental study," Advance, pp. 1–15, May 26, 2021, doi: 10.31124/advance.14681253.v1.
- pp. 1–15, May 26, 2021, doi: 10.31124/advance.14681253.v1.
 [41] L. van Katwijk, A. Berry, E. Jansen, and K. van Veen, "'It's important, but I'm not going to keep doing it!': perceived purposes, learning outcomes, and value of pre-service teacher research among educators and pre-service teachers," *Teaching and Teacher Education*, vol. 86, p. 102868, Nov. 2019, doi: 10.1016/j.tate.2019.06.022.
- [42] L. van Katwijk, E. Jansen, and K. van Veen, "Pre-service teacher research: a way to future-proof teachers?" European Journal of Teacher Education, vol. 46, no. 3, pp. 435–455, May 2023, doi: 10.1080/02619768.2021.1928070.
- [43] D. S. Nahdi, M. G. Jatisunda, U. Cahyaningsih, and V. Suciawati, "Pre-service teacher's ability in solving mathematics problem viewed from numeracy literacy skills," İlköğretim Online, vol. 19, no. 4, p. 1902, 2020, doi: 10.17051/ilkonline.2020.762541.

- [44] X. Jia, W. Li, and L. Cao, "The role of metacognitive components in creative thinking," Frontiers in Psychology, vol. 10, p. 2404, Oct. 2019, doi: 10.3389/fpsyg.2019.02404.
- [45] E. Tok, "Pre-service preschool teachers' metacognitive awareness and creative thinking domains," *Shanlax International Journal of Education*, vol. 10, no. 3, pp. 71–78, Jun. 2022, doi: 10.34293/education.v10i3.4675.
- [46] B. Zunica, "Technology everywhere! But who's got the time? The influence of time pressures on technology integration in Australian secondary mathematics," *Discover Education*, vol. 2, no. 1, p. 45, Nov. 2023, doi: 10.1007/s44217-023-00071-w.
- [47] C. Y. Ersanli, "Improving technological pedagogical content knowledge (TPACK) of pre-service English language teachers," International Education Studies, vol. 9, no. 5, pp. 18–27, Apr. 2016, doi: 10.5539/ies.v9n5p18.
- [48] H. T. M. Nguyen, *Models of mentoring in language teacher education*. Cham: Springer International Publishing, 2017, doi: 10.1007/978-3-319-44151-1.
- [49] F. Xie and A. Derakhshan, "A conceptual review of positive teacher interpersonal communication behaviors in the instructional context," *Frontiers in Psychology*, vol. 12, p. 2623, Jul. 2021, doi: 10.3389/fpsyg.2021.708490.
 [50] B. N. Frisby, A.-C. Beck, A. S. Bachman, C. Byars, C. Lamberth, and J. Thompson, "The influence of instructor-student rapport
- [50] B. N. Frisby, A.-C. Beck, A. S. Bachman, C. Byars, C. Lamberth, and J. Thompson, "The influence of instructor-student rapport on instructors' professional and organizational outcomes," *Communication Research Reports*, vol. 33, no. 2, pp. 103–110, Apr. 2016, doi: 10.1080/08824096.2016.1154834.
- [51] Y. K. Tran, "Creating confident preservice teachers for EL students in the changing world," English Language Teaching, vol. 16, no. 8, p. 39, Jul. 2023, doi: 10.5539/elt.v16n8p39.
- [52] C. M. Pavlak and M. Cavender, "When words do not work: exploring preservice teachers' confidence in teaching reading to English learners," Networks: An Online Journal for Teacher Research, vol. 21, no. 2, p. 4, 2019, doi: 10.4148/2470-6353.1300.
- [53] K. Li, M. Y.-P. Peng, Z. Du, J. Li, K.-T. Yen, and T. Yu, "Corrigendum: do specific pedagogies and problem-based teaching improve student employability? A cross-sectional survey of college students," Frontiers in Psychology, vol. 11, p. 1099, Aug. 2020, doi: 10.3389/fpsyg.2020.01872.
- [54] P. Häkkinen, S. Järvelä, K. Mäkitalo-Siegl, A. Ahonen, P. Näykki, and T. Valtonen, "Preparing teacher-students for twenty-first-century learning practices (PREP 21): a framework for enhancing collaborative problem-solving and strategic learning skills," *Teachers and Teaching*, vol. 23, no. 1, pp. 25–41, Jan. 2017, doi: 10.1080/13540602.2016.1203772.
- [55] D. M. Ocampo, "21st pedagogical competence of pre-service teachers in the new normal modalities," Online Submission, vol. 11, no. 1, pp. 74–79, 2021.
- [56] K. C. Piad, M. Dumlao, M. A. Ballera, and S. C. Ambat, "Predicting IT employability using data mining techniques," in 2016 Third International Conference on Digital Information Processing, Data Mining, and Wireless Communications (DIPDMWC), Jul. 2016, pp. 26–30, doi: 10.1109/DIPDMWC.2016.7529358.
- [57] F. Jasak, S. Sugiharsono, and S. Sukidjo, "The role of soft skills and adversity quotient on work readiness among students in university," *Dinamika Pendidikan*, vol. 15, no. 1, pp. 26–39, Jun. 2020, doi: 10.15294/dp.v15i1.23530.
- [58] F. Tentama, S. Subardjo, N. Merdiaty, and S. A. Mulasari, "The effect of interpersonal communication and self-adjustment to the work readiness of vocational high school students," *International Journal of Research Studies in Education*, vol. 8, no. 3, pp. 29–38, Jun. 2019, doi: 10.5861/ijrse.2019.4004.
- [59] A. Khan, "Development of employability framework through skill-discrepancy method: a perspective of LIS interns and librarians in the University of Peshawar, Pakistan," *International Information & Library Review*, vol. 54, no. 1, pp. 39–52, Jan. 2022, doi: 10.1080/10572317.2021.1873052.
- [60] C. Y. Tan, A. G. K. Abdullah, and A. J. Ali, "Soft skill integration for inspiring critical employability skills in private higher education," *Eurasian Journal of Educational Research*, vol. 92, pp. 23–39, 2021.
- [61] D. Dumitru and D. F. Halpern, "Critical thinking: creating job-proof skills for the future of work," *Journal of Intelligence*, vol. 11, no. 10, p. 194, Oct. 2023, doi: 10.3390/jintelligence11100194.

BIOGRAPHIES OF AUTHORS



Cristie Ann L. Jaca is serious professor II at Cebu Technological University and currently the University Director for Information, Communication, and Public Affairs. She finished her Doctor of Philosophy in Education and Master of Arts in English Language Teaching from the University of San Carlos. She is a licensed professional teacher who continuously updates her teaching skills through research and special training to enhance her teaching profession and takes special courses to upgrade her skills as a teacher-researcher, textbook writer, teacher trainer, and curriculum developer. She can be contacted at email: cristieann.jaca@ctu.edu.ph.



Wilson D. Castañeda Jr. Description is an Assistant Professor at Cebu Technological University. He holds a Master of Science in Mathematics (MS-Math) and a Bachelor of Science in Mathematics (BS-Math), both of which he earned at Cebu Normal University. Leveraging his expertise, he is also a licensed professional teacher and the Department of Mathematics and Statistics research and extension focal person. His dedication to advancing mathematical knowledge is evident in his scientific publications and research interests, which focus on special functions and asymptotic analysis. He can be contacted at email: wilsonjr.castaneda@ctu.edu.ph.