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Competency Skills, Challenges, and Opportunities of Generation Z Learners: Springboard for Culture-Based Extension Program Development

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Abstract

This study examines the level of competency skills, challenges and opportunities faced by the Generation Z Learners in the context of Sultan Kudarat State University- College of Teacher Education. Employing a quantitative research design with a descriptive and correlational non-experimental approach with a complete enumeration technique, both adapted-modified and research-made survey questionnaires involving a total of 438 respondents. The findings revealed that although all competencies garnered a "High" mean score, critical thinking skills emerged as the lowest among the various competencies assessed, this emphasizes the need for integration of different teaching pedagogies to enhance the critical thinking Skills of the Learners. However, the study identifies mental health issues and cultural disconnectedness as the primary challenges faced by the Gen Z Learners, On the other hand, the research also highlights the opportunity for enhancing learning experiences through increased access to digital Education. The study also found no significant relationship between students' competency skills and challenges and a low positive relationship between students' competency skills and opportunities. Furthermore, the results serve as a foundation for developing a culture- based extension program aimed at addressing the unique needs of Generation Z Learners in Teacher Education.

Keywords: *Generation Z Learners, Challenges, Competency Skills, Opportunities, Culture-Based Extension*

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Introduction

The competencies necessary for success have evolved dramatically in the contemporary educational landscape due to technological advancements, globalization, and shifting workplace demands. Generation Z, born between 1997 and 2012, is a demographic profoundly shaped by these changes, characterized by their deep engagement with digital technology and global interconnectedness [12]. As traditional educational models struggle to keep pace with these shifts, there is an increasing need to understand and address the specific competencies that Generation Z requires. These competencies, often encapsulated as critical thinking, communication, collaboration, and creativity (4 C's), are essential for navigating today's complex environment. Critical thinking enables students to analyze and synthesize information effectively, while communication skills, including digital literacy, are crucial for effective information exchange. Collaboration involves working in diverse teams to achieve shared goals, and creativity is vital for generating innovative solutions in a dynamic job market.

Globally, critical thinking, communication, collaboration, and creativity, collectively known as the "4 C's," are increasingly recognized as vital skills for navigating the complexities of the 21st century. These competencies are crucial for preparing Generation Z to address the diverse and dynamic demands of the modern workforce.

Nationally, educational systems are striving to adapt to these evolving requirements. However, challenges persist, including a lack of self-awareness among students, insufficient emphasis on skill-based education, and unclear career pathways. Additionally, mental health issues and cultural disconnectedness further complicate the learning environment, exacerbating difficulties in student engagement and academic performance. Despite these challenges, the rise of digital education provides significant opportunities for addressing these issues. Access to digital resources, development of digital literacy, and global connectivity offer Generation Z learners new avenues for enhancing their educational experiences and overcoming traditions.

At a local level, institutions such as the College of Teacher Education at Sultan Kudarat State University-ACCESS Campus are tasked with integrating these competencies into their extension programs while addressing the specific challenges their students face. The shift toward digital learning environments has revealed knowledge gaps in integrating extension programs to improve competency skills such as self-awareness, skill-based education, and career clarity, alongside the mental health and cultural challenges students encounter [4]. Additionally, the impact of these programs on learners' development has yet to be thoroughly investigated. Although

digital tools and online resources present significant opportunities for improving educational practices, a notable gap exists in understanding how to effectively incorporate the 4 Cs into localized educational programs to address these challenges.

This study addresses this gap by exploring how critical thinking, communication, collaboration, and creativity can be applied within extension programs at the College of Teacher Education of Sultan Kudarat State University-ACCESS Campus. By examining the specific challenges of self-awareness, skill-based education, career clarity, mental health, and cultural disconnectedness, as well as the opportunities provided by digital education and global connectivity, this research seeks to develop innovative approaches that align with the needs of Generation Z learners.

Statement of the Problem

This study aimed to determine the Competency Skills, Challenges, and Opportunities of the Generation Z Learners of the College of Teacher Education of Sultan Kudarat State University-ACCESS Campus.

Specifically, it sought to answer the following questions:

1. What is the demographic profile of the students at the College of Teacher Education of Sultan Kudarat State University-ACCESS Campus in terms of:
 - 1.1. sex
 - 1.2. age
 - 1.3. College program and specialization?
2. What is the level of competency skills of the Generation Z Learners in the College of Teacher Education of Sultan Kudarat State University- ACCESS Campus in terms of:
 - 2.1. Critical Thinking.
 - 2.2. Communication.
 - 2.3. collaboration; and
 - 2.4. creativity?
3. To what extent do Generation Z Learners face the challenges in terms of:
 - 3.1. Lack of Self-Awareness
 - 3.2. Lack of Skill-Based Education
 - 3.3. Lack of Clarity about Career
 - 3.4. Mental Health Issues
 - 3.5. Cultural Disconnectedness
4. To what extent are the opportunities faced by Generation Z Learners in terms of:
 - 4.1. Access to Digital Education

4.2. Development of Digital Literacy

4.3. Global Connectivity

5. Is there a significant relationship between the competency skills of Generation Z learners and the challenges and opportunities they faced?
6. What proposed Extension program could be developed to enhance the Competency Skills of Generation Z Learners?

Methods

This study employed a quantitative research design, specifically utilizing descriptive and correlational analysis to explore the competency skills, challenges, and opportunities faced by Generation Z learners. The correlational research design was chosen as it examines the relationships between two or more variables, without involving manipulation or control of the variables, as outlined by [3]. This non-experimental approach aligns with the study's objectives, focusing on identifying patterns and associations among the variables. Data collection was facilitated through an adapted-modified research questionnaire, alongside a researcher-developed survey instrument. The first questionnaire, which assessed the competency skills of third-year students, was adapted from [7] 's thesis titled *The Utilization of the 4 C's to Enhance English Proficiency*. The second questionnaire, which focused on the challenges and opportunities faced by Generation Z learners, was a custom-designed instrument validated by field experts. Both instruments utilized a five-point Likert scale to measure the competency skills and the challenges and opportunities experienced by Generation Z Learners. The questionnaire was structured into four sections: Firstly, the Demographic Profile, which collected data on the sex, age, college program, and specialization of the third-year students at the College of Teacher Education, Sultan Kudarat State University-ACCESS Campus. Secondly, 21st-Century Competency Skills, this section evaluated the students' competency skills, particularly in the 4 Cs (Critical Thinking, Communication, Collaboration, and Creativity), using the five-point Likert scale: 5 = Very High, 4 = High, 3 = Moderate, 2 = Low, and 1 = Very Low. Thirdly, Challenges and Opportunities, this section contained 50 items that assessed the challenges and opportunities students encountered. Responses were rated on a five-point Likert scale: 5 = Always, 4 = Often, 3 = Sometimes, 2 = Rarely, and 1 = Never. Lastly, the Significant Relationships section explored the relationships between the students' competency skills and the challenges and opportunities they experienced.

To ensure the validity and effectiveness of the instrument, six field experts reviewed the content of the questionnaires. Furthermore, a pretest was conducted with

30 respondents to assess the questions' clarity, readability, and internal consistency, per the guidelines provided by a statistician.

The study sample consisted of 438 third-year students considered as Generation Z from the Sultan Kudarat State University-ACCESS Campus, enrolled in the second semester of the Academic Year 2023-2024. The sample included 210 students from the Bachelor of Elementary Education (BEEd), 189 students from the Bachelor of Secondary Education (BSEd), and 39 students from the Bachelor of Physical Education (BPEd) programs. Respondents were selected based on their relevant experiences during the COVID-19 pandemic, during which they engaged in online learning from senior high school through college. The limitation of face-to-face interactions during this period likely impacted the development of their competency skills, particularly in critical thinking, communication, collaboration, and creativity (the 4 Cs). As such, this cohort was chosen for its unique experiences in navigating these challenges in an evolving educational context.

The demographic data were analyzed using frequency and percentage distributions concerning sex, age, and college program specialization. Descriptive statistics, including mean and standard deviation, were employed to assess the Generation Z Learners' competency skills and to quantify the challenges and opportunities they encountered. To examine the relationships between competency skills and the challenges and opportunities, the Pearson Correlation Coefficient (r) was used. Ethical standards were rigorously followed throughout the study. Informed consent was obtained from all participants, ensuring they were fully aware of the study's aims, procedures, and right to withdraw without adverse consequences.

Results and Findings of the Study

This chapter presents salient findings based on the data gathering with the respondents.

Table 1. Demographic Profile of Respondents in terms of Sex

Sex	<i>F</i>	%
Male	92	21
Female	346	79
Total	438	100

The table shows the demographic profile of the students in terms of Sex. Most students (346 or 79%) were female, while only 92 (21%) were male. This result indicates

that many female students were more likely to pursue college teacher education programs than males.

Table 2. Demographic Profile of Respondents in terms of Age

Age	<i>f</i>	%
16-20 years old	69	15.75
21-30 years old	368	84
30 years old and above	1	0.25
Total	438	100

The table shows the demographic profile of the students in terms of Age. As revealed in the table, most students (368 or 84%) were 21-30 years old. Moreover, there were students (69 or 15.75%) ranging from 16 to 20 years old. Furthermore, one student (1 or 0.25%) is 30 years old and above. This result indicates that most students are aged 21-30 years old. It implies that most of the participants' age distribution is in young adults, suggesting that instructional methods and support services may need to be designed to meet the developmental needs in transitioning from adolescence to early adulthood.

Table 3. Demographic Profile of Respondents in terms of College Program and Specialization

College Program	Specialization	<i>F</i>	%
BEEd		210	48
BPEd		39	8
BSEd	English	44	11
BSEd	Filipino	33	7
BSEd	Science	42	10
BSEd	Mathematics	33	7
BSEd	Social Studies	37	9
Total		438	100

The table shows the demographic profile of the students in terms of College Program and Specialization. As stated in the table, most students (210, or 48%) were enrolled in BEEd (Bachelor of Elementary Education). There were also enrolled (44 or 11%) from BSEd-English. Several students (42 or 10%) chose BSEd-Science. Some students (39 or 8%) chose the BPEd (Bachelor of Physical Education). The other students (37 or 9%) chose the BSEd-Social Studies.

On the other hand, college programs and specializations such as BSEd-Filipino and BSEd-Mathematics garnered (33 or 7%) the same number of students enrolled in the program. The total number of students from each college program and specialization is 438 or 100%. This result implies that many students have expressed interest in pursuing teacher education programs that focus on teaching younger age groups, as Generation Z students recognize the importance of early childhood education in shaping young minds and providing a lasting societal impact. This focus on stability and impact aligns with research findings, such as a study published by the Southern Regional Education Board, which highlights Generation Z's strong preference for careers that offer job security and a clear societal role (SREB, 2023).

Table 4. Summary of the Level of Competency Skills of the Generation Z Learners in the College of Teacher Education of Sultan Kudarat State University- ACCESS Campus

Indicators	Mean	SD	Description
Critical Thinking	3.99	0.52	High
Communication	4.03	0.53	High
Collaboration	4.15	0.56	High
Creativity	4.00	0.61	High
Overall Mean	4.04	0.45	High

The table summarizes the level of competency skills of the Generation Z Learners in the College of Teacher Education of Sultan Kudarat State University-ACCESS Campus. Out of 4 levels of competency skills, Collaboration obtained the highest mean of 4.15 with a standard deviation of 0.56, described as High. Conversely, Critical Thinking got the lowest mean of 3.99 with a standard deviation of 0.52, which is described as High. Overall, the level of competency skills of the students in the College of Teacher Education of Sultan Kudarat State University-ACCESS Campus got a mean of 4.04 with a standard deviation of 0.45, described as High. While Generation Z learners excel in collaborative skills, there remains a significant need to address the development of critical thinking. Engaging with the community allows students to apply academic theories to real-world situations, bridging the gap between classroom learning and practical application. It implies that the limitations of the pandemic, including reduced face-to-face interactions, hampered the development of critical thinking skills, which are often nurtured in dynamic, interactive classroom settings. As noted by [5], critical thinking is fostered through direct engagement with instructors and peers, allowing students to refine their ideas, receive immediate feedback, and engage in higher-order thinking.

Table 5. Summary of the Extent of Challenges Faced by Generation Z Learners

Indicators	Mean	SD	Description
Lack of Self-Awareness	3.43	0.56	Sometimes
Lack of Skill-Based Education	3.39	0.68	Sometimes
Lack of Clarity About Career	3.12	0.77	Sometimes
Mental Health Issues	3.61	0.79	Often
Cultural Disconnectedness	3.62	0.77	Often
Overall Mean	3.43	0.55	Sometimes

The table shows that among the specific challenges, Mental Health Issues and Cultural Disconnectedness stand out with higher mean scores of 3.61 and 3.62, respectively. Both issues are described as being experienced “Often” by the learners. This stresses the significant impact that mental health and cultural engagement have on the educational experiences of Generation Z. Mental health issues, including stress and anxiety, have been widely documented as major concerns for students, affecting their academic performance and overall well-being [9]. Similarly, cultural disconnectedness reflects students’ challenges in feeling connected to their cultural heritage amidst a globalized digital environment [6].

Overall, the results highlight that Generation Z learners face significant challenges in terms of mental health and cultural connectivity, which may require targeted interventions to address effectively. This aligns with existing literature, emphasizing the need for comprehensive support systems in educational settings to mitigate these issues and enhance students’ overall academic and personal experiences (Martin & Smith, 2023).

Table 6. Summary of the Extent of Opportunities Faced by Generation Z Learners

Indicators	Mean	SD	Description
Access to Digital Education	3.62	0.76	Often
Development of Digital Literacy	4.34	0.66	Often
Global Connectivity	4.18	0.70	Often
Overall Mean	4.05	0.56	Often

The table summarizes the extent of opportunities faced by Generation Z Learners. The indicator that garnered the highest mean is Access to Digital Education, with a mean score of 3.62 and a standard deviation of 0.70. At the same time, the lowest is Global Connectivity, with a mean of 4.18 and a standard deviation of 0.70.

It implies that while Generation Z Learners have a solid foundation in accessing digital education and participating in global connectivity, there remains room for

improvement. While these learners are engaged with the digital world, there may be gaps in utilizing this global connectivity for educational and professional growth.

Table 7. Significant Relationship between the Competency Skills and Challenges and Opportunities of Generation Z Learners

		Indicators	Mean	SD	r	p	Description
Gen Z Learners	Competency Skills	Challenges	3.31	0.55	.006	.892	No Significant Relationship
Gen Z Learners	Competency Skills	Opportunities	4.05	0.56	.309**	.000	Low Positive Relationship

***Correlation is significant at the .05 level.*

Table 7 shows the significant relationship between the Learners’ competency skills and challenges and opportunities. As shown in the table, Generation Z Learners’ competency skills (challenges) obtained a mean of 3.31 with a standard deviation of 0.55. This result revealed that the value of *r*, which is .006, was used to test the correlation, which is significant at the .05 level, showing that the challenge has no significant relationship (.892) to the students’ 21st century competency skills.

This result shows many reasons for the lack of a significant relationship between the Generation Z Learners’ competency skills and their challenges. The current education system is not adapting effectively to the rapidly changing global landscape. It led to a mismatch between the skills that were required and those that were being taught.

These findings correlated with the study’s results [1]. It is common for people to have a limited understanding of their abilities. Studies indicate a mere 0.29 correlation between self-evaluations and external assessments by others. Additionally, individuals encounter difficulties adapting to changing job markets, technological advancements, and uncertainty regarding the most valuable skills.

On the other hand, students’ 21st century competency skills (opportunities) obtained a mean of 4.05 with a standard deviation of .56. This result showed that it used the value of *r*, which is .309**, to test the correlation, which is significant at the .05 level. It indicates a low significant relationship (.000) between the opportunities and the students’ competency skills.

This result implies several reasons for the low significance of the relationship between Generation Z Learners’ competency skills and opportunities in areas such as

Access to Digital Education, Development of Digital Literacy, and Global Connectivity. The fast pace of technological advancement outpaces student learning, leading to a gap between students' competency skills and opportunities.

These findings correspond to the study's results ([10]) as part of advancements in regular teaching and learning processes, which have implemented online and digital learning methods for students at various educational levels over the past few years.

Therefore, the results of this study rejected the null hypothesis that there is a significant relationship between the competency skills and the challenges and opportunities faced by Generation Z learners.

Discussion

The study revealed that most respondents were female (79%) and enrolled in BEEd programs (48%), reflecting the continuing trend of women dominating teacher education, especially in early childhood and elementary fields. It suggests that the university is preparing a workforce that will largely shape foundational learning in schools. Regarding age, the majority (84%) were 21–30 years old, indicating a cohort in early adulthood marked by career-building and professional identity formation, which influences their readiness for teaching roles.

Competency skills of Generation Z learners were rated High overall ($M = 4.04$), with Collaboration as their strongest skill, followed by Communication and Creativity, while Critical Thinking was relatively weaker. This pattern highlights their adaptability in teamwork and digital interaction. It also points to the need for more structured opportunities to practice analysis, reasoning, and problem-solving skills often developed through interactive and applied learning.

Regarding challenges, the most pressing concerns were Cultural Disconnectedness and Mental Health Issues, both of which are experienced often by students. These issues underscore how globalization and digital immersion may weaken cultural identity, while stress and anxiety continue to impact academic performance. Other concerns, such as lack of career clarity and skill-based education, were present but less dominant. On the other hand, opportunities were strong, with students reporting frequent access to Digital Education, Digital Literacy, and Global Connectivity. It indicates that they are well-positioned to harness technology and global linkages in their professional development, if access gaps are addressed.

Finally, results showed no significant relationship between challenges and competencies, suggesting that students can maintain their skills despite difficulties, possibly due to resilience or support systems. However, there was a low positive

relationship between opportunities and competencies, meaning that greater exposure to digital tools and global connections enhances collaboration, communication, and creativity. It reinforces the importance of aligning digital opportunities with competent development in teacher education.

In sum, the findings point to a cohort of young aspiring teachers who are collaborative, digitally literate, and globally connected, but who also need targeted support in critical thinking, cultural engagement, and mental health to become well-rounded professionals.

Conclusion

It was found that female students were more likely than male students to pursue education in the twenty-first century. Most third-year students in the College of Teacher Education were between the ages of twenty-one and thirty. The largest group of students was enrolled in the BEEd program, which aims to help educate elementary students, developing and enhancing their skills to prepare them for the challenges and opportunities. In addition, the study discovered that College of Teacher Education students exhibited high competency skills. However, there is still a need to highlight the enhancement of their critical thinking Skills. Students sometimes encounter challenges with Mental Health Issues and Cultural Disconnectedness. On the other hand, students often experience opportunities such as Access to Digital Education, Development of Digital Literacy, and Global Connectivity. The study also revealed no significant relationship between students' competency skills and challenges, but a low positive relationship existed between students' competency skills and opportunities.

Recommendations

1. The College of Teacher Education may integrate student community and classroom-based Learning Engagement to develop well-rounded critical thinking skills.
2. The College of Teacher Education may develop community-based extension programs focused on values formation, peace development, and cultural preservation to reconnect students to their cultural identities.
3. Educational institutions may continue to enhance and integrate technology into the curriculum and classes, ensuring consistent access to digital education and promoting the development of digital literacy.

4. Gen Z Learners may proactively seek opportunities for skills development beyond the classroom.
5. Future Researchers may explore other variables not included in the study, such as time management, social isolation, educational platforms, virtual libraries, and educational apps.

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