Exploring 21st Century Skill Competencies in Local College Students of Monkayo Davao De Oro

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ABSTRACT

In the rapidly evolving landscape of the 21st century, the demands placed on individuals within the workforce have undergone profound transformations, Aizenkot & Ben David (2023). As societies become increasingly interconnected and technology continues to advance, according to Frache, Tombras, Nistazakis, & Thompson (2019) the skill sets required for success in the professional arena have expanded beyond traditional academic knowledge. In response to these changes, the concept of 21st-century skills has emerged as a critical framework for assessing and developing competencies essential for thriving in the contemporary world, St. Louis, Thompson, Sulak, Harvill, & Moore (2021). As asserted by Sahin et al. (2019), 21st-century skills involve learning and innovation skills, life and career skills, interdisciplinary themes, and information, media, and technology skills. The study focused on assessing the 21st-century skills of college students in Monkayo, Davao de Oro. The findings showed that students in BEED, BSA, and BSED programs had stronger skills compared to BSBA students. Gender, year level, and academic department were found to significantly influence skill levels. Overall, the students demonstrated a moderate level of proficiency in 21st-century skills, with room for improvement in interdisciplinary themes.

Keywords: 21st-century Skills, Local College, Davao Region, Philippines

INTRODUCTION

In the rapidly evolving landscape of the 21st century, the demands placed on individuals within the workforce have undergone profound transformations, Aizenkot & Ben David (2023). As societies become increasingly interconnected and technology continues to advance, according to Frache, Tombras, Nistazakis, & Thompson (2019) the skill sets required for success in the professional arena have expanded beyond traditional academic knowledge. In response to these changes, the concept of 21st-century skills has emerged as a critical framework for assessing and developing competencies essential for thriving in the contemporary world, St. Louis, Thompson, Sulak, Harvill, & Moore (2021). As asserted by Sahin et al. (2019), 21st-century skills involve learning and innovation skills, life and career skills, interdisciplinary themes, and information, media, and technology skills.

One of the most serious issues teachers in the United States confront is their students' inability to think logically. Teachers frequently complain about their students' low learning and creativity abilities and their inability to apply critical thinking competency (Mundry, 2008). In addition, teachers observed that students do not participate in reflective or independent thinking and that they struggle with word problems because they do not understand the subject properly. As a result, schools generated graduates with insufficient theoretical competency and technical know-how, as well as the inability to critically and effectively assess information (Arinto & Garcia 2009).

In the book titled The Learning Crisis in Philippine Education: An overview (Bautista & Aranas, 2023), stressed that a diploma is too thin an armor to shield Filipino graduates from the impacts of an unprecedented disruptive future. Filipino learners need to be equipped with 21st-century competencies, such as critical thinking and problem-solving, to thrive in today's fast-changing world. They also underscored the importance for schools and academic institutions to provide spaces for learners to acquire character-building qualities, such as leadership, initiative, adaptability, and grit.

This research endeavor is to delve into the landscape of 21st-century skill competencies among local college students in Monkayo to contribute to the growing body of knowledge surrounding 21st-century skills by offering empirical insights into the skill competencies of local college students. By understanding the current landscape and identifying opportunities for improvement, the researchers aspire to foster the holistic development of individuals equipped to thrive in the dynamic challenges of the 21st century.

MATERIALS AND METHODS

This study is quantitative research employing descriptive design. According to Mertler (2014), descriptive research aims to describe and interpret the state of people, situations, circumstances, or events. This design would be appropriate to assess the level of 21st Century Skills of the local college students.

There were 300 respondents for this study, who were students of a local college in the municipality. Hair et al. (2018) suggested that the sample size was appropriate for conducting multivariate studies. The number of respondents per program was determined according to their enrollment population. As to the selection of respondents the researcher used the following criteria, they should be officially admitted and enrolled in any of the programs offered by the college namely: Bachelor of Science in Business Administration (BSBA); Bachelor of Science in Agriculture (BSA); Bachelor in Elementary Education (BEED); and Bachelor in Secondary Education. Finally, the respondents were of legal age, and willing to participate voluntarily in the study.

This study was anchored on the Social Learning Theory of Bandura (1977). This theory suggests that learning occurs through observation, imitation, and modeling. This theory highlights the importance of social interaction and collaboration in developing skills. For college students, this theory underscores the value of collaborative learning experiences, peer interactions, and role modeling in building 21st-century skills.

Two sets of questionnaires were adapted and validated by experts on questionnaire construction and utilized a five-point Likert-type scale. The first part of the instrument was used to determine their demographic profile. The second part was to assess the level of their 21st Century Skills, which was adapted from the study of Sahin et al. (2019). The data gathered were classified, analyzed, and interpreted using the following appropriate statistical tools: Frequency was used to determine their demographic profile. Further, mean and standard deviation were used to measure the level of 21st-century skills of the local college students in Monkayo, Davao de Oro.

RESULTS AND DISCUSSIONS

Presented in Table 1 is the demographic profile of the students based on their program. The BSBA program has the largest enrollment (51.7%). Following closely, the BSED program makes up 24% of the population. The BEED program houses 14.7% of the enrollment population, while the BSA program has the smallest enrollment, constituting 9.7% of the population.

Table 1. Demographic Profile according to their Department

Department	Frequency Count	Percentage
BSBA	155	51.7
BSA	29	9.7
BEED	44	14.7
BSED	72	24.0
Total	300	100.0

Table 2 provides the demographic profile of the students based on their sex. The data shows that the majority of the respondents of the study were composed of females (62.3%).

Table 2. Demographic Profile according to their Sex

Sex	Frequency Count	Percentage
Male	113	37.7
Female	187	62.3
Total	300	100.0

Table 3 illustrates the demographic profile of the students according to their year level. The table shows that most of the enrollment population comprises first-year students (47%).

Table 3. Demographic Profile according to their Year Level

Year Level	Frequency Count	Percentage
First	141	47.0
Second	62	20.7
Third	41	13.7
Fourth	56	18.7
Total	300	100.0

Shown in Table 4is the status of the21st-century skills of the local college students in Monkayo, Davao de Oro. The data were analyzed through the mean and standard deviation. The standard deviation of the variable ranges from 1.04-1.09 which denotes high variability in the responses from the respondents. This suggests that some students possess significantly stronger 21st-century skills compared to others. Further investigation into these variations could be valuable for tailoring educational interventions. The overall level of 21st - century skills was moderate, with a mean score of 3.39, indicating that their skills are fairly adequate.

The findings signify a predominantly moderate level and specify fair adequacy of their skills. Specifically, life and career skills reflected the highest mean with 3.46, implying that their skills in this domain are adequate. This indicates that students feel confident in areas like self-management, goal setting, and career planning. On the other hand, the interdisciplinary themes had the lowest mean score of 3.35, indicating a moderate level, suggesting that their21st-century skills in this area are fairly adequate, signifying room for improvement. This further indicates that indicating that students may need some improvement in their ability to integrate knowledge and solve problems across different disciplines.

Table 4. Level of 21st Century Skills

Indicators	Std. Dev.	Mean	Description
Learning and Innovation Skills	1.04	3.36	Fairly Adequate
Life and Careers Skills	1.09	3.46	Adequate
Interdisciplinary Themes	1.08	3.35	Fairly Adequate
Information, Media, and Technology Skills	1.08	3.40	Adequate
Overall Mean		3.39	Fairly Adequate

Legend: **Range of Means** **Interpretation**

4.20 – 5.00	Very adequate
3.40 – 4.19	Adequate
2.60 – 3.39	Fairly Adequate
1.80 – 2.59	Inadequate
1.00 – 1.79	Very inadequate

Table 5 offers a summary of the results, assessing whether the demographic profile of the college students have a significant impact on the level of their 21st-century skills. Based on the findings, there is a significant difference in skill level between male and female students, with female students exhibiting a higher level of skills (p-value = 0.02). Gender differences might be influenced by social norms and expectations around the types of activities students engage in. Female students may have had more opportunities to develop communication and collaboration skills. Additionally, according to the data analysis, students in third and fourth-year levels possess significantly higher skills compared to those in lower levels, as evidenced by a p-value of 0.04. Compared to freshmen and sophomores, Upperclassmen likely have had more exposure to coursework, projects, and experiences that develop 21st century skills. Furthermore, BEED, BSA, and BSED students have significantly higher 21st-century skills than BSBA students, as indicated by a department p-value of 0.00. The higher scores in BEED, BSA, and BSED programs could be due to a curriculum that emphasizes communication, collaboration, problem-solving, and critical thinking skills more than the BSBA program.

Table 5. Comparison of the 21st Century Skills based on Profile

Profile	Groups	N	Mean	p-value	Remarks
Sex	Male	113	3.26	.02	Significant Female>Male
	Female	187	3.47		
Year Level	First	141	3.26	.04	Significant Third & Fourth Year> First Year
	Second	62	3.33		
	Third	41	3.65		
	Fourth	56	3.62		
Department	BSBA	155	3.19	.00	Significant BEED, BSA & BSED> BSBA
	BSA	29	3.60		
	BEED	44	3.71		
	BSED	72	3.55		

The mean difference is significant at the 0.05 level.

CONCLUSIONS AND RECOMMENDATIONS

After analyzing the study, we can draw some conclusions. The college students in Monkayo, Davao de Oro possess a moderate level of 21st-century skills, particularly in learning and innovation skills, and interdisciplinary themes. This indicates that their skill competency in these areas is fairly adequate. However, their life and career skills, as well as information, media, and technology skills, are at a high level, indicating that their skills in these areas are adequate.

This study also investigated the relationship between demographic profile and their 21st-century skills. The findings reveal that gender, year level, and academic department significantly influence skill levels. Female students demonstrated a higher proficiency in 21st-century skills compared to males. Additionally, students in their third and fourth year displayed a significant advantage over freshmen and sophomores. Finally, students enrolled in BEED, BSA, and BSED programs exhibited significantly stronger 21st-century skills than BSBA students. These findings suggest the need for further research to explore the underlying reasons for these disparities and to develop targeted interventions that can help all students develop the essential skills required for success in the 21st century workplace.

College students in Monkayo, Davao de Oro demonstrated moderate proficiency in 21st-century skills, particularly in learning and innovation, and interdisciplinary themes. However, skills in life and career, information, media, and technology were even stronger. Interestingly, the study found that gender, year level, and academic department significantly influenced skill levels. Social Learning Theory (Bandura, 1977) sheds light on these disparities. Female students, upperclassmen, and those in programs like BEED, BSA, and BSED likely had more opportunities to observe, practice, and receive feedback on these skills through interactions with peers, instructors, and program-specific coursework. Moving forward, incorporating Social Learning principles like peer learning, collaborative projects, and tailored program activities can create a learning environment that fosters the development of essential 21st-century skills for all students.

The assessment of 21st-century skills among college students in Monkayo has highlighted significant areas for improvement, presenting opportunities for targeted interventions. First, there is a need to address skill gaps across different departments. Specifically, the BSBA programs should undergo a curriculum review to better integrate essential skills such as communication, collaboration, and critical thinking, which are vital for business success. Furthermore, promoting cross-disciplinary learning through collaboration with departments like BEED or BSED could enhance the educational experience. Additionally, bridging the gap between year levels is crucial. Implementing programs for first-year students that equip them with foundational skills, and encouraging peer learning through mentorship or collaborative projects, could foster a more cohesive learning environment. Finally, it is essential to ensure that skill development activities are integrated across all courses, not limited to electives, to provide a comprehensive educational experience for all students.

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