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College Students' 21st Century Skill and its Impact to their Career Readiness: A Sequential Explanatory Design

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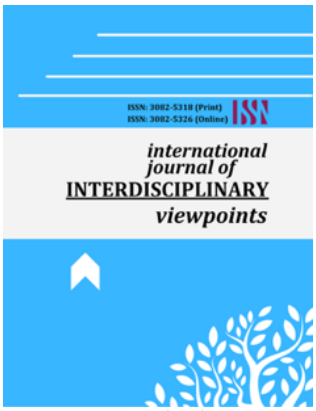

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ABSTRACT

This research investigates the relationship between job preparedness and college students' 21st-century skills. Surveys and interviews were used in the study, which used a sequential explanatory design. A 40-question survey was given to 101 BEED students from all years to determine their job preparedness in areas including knowledge, skills, resources, motivation, and career management, as well as their abilities in critical thinking, communication, teamwork, and creativity. Further insights into how these abilities affect job preparation were obtained in the second phase via in-depth interviews and group discussions with eight students. The results highlighted the need to continuously develop these talents to meet the demands of the labor market by demonstrating a substantial correlation between career preparedness and 21st-century competencies. The study addresses the implications for future research and practice and offers suggestions for enhancing these abilities in its conclusion.

Keywords: education, 21st-century skills, career readiness

INTRODUCTION

As more students around the world struggle to use what they learn in school in real life, the number of "college and job ready" students is growing. Desimone et al. (2019) say that states like Kentucky, Ohio, and Texas are still having trouble implementing school standards for college and job readiness, especially in places that don't have enough resources. Sometimes, institutions don't help some groups of students and resources aren't shared evenly, which hurts those students. In addition, Uy, Kim, and Khuon (2019) found that students often have trouble adjusting to college life and getting ready for future jobs because they don't have enough help with their studies, money, or work advice. These global trends show that kids need planned programs that teach them the skills they need to be successful in the 21st century. For example, being able to talk to people, work with others, and change with the times are some of these skills.

The same thing is happening with many kids in the Philippines who still don't know what they want to do after school. And Benaning says that a lot of kids still don't know what they want to do with their lives. There are problems with money, job-training programs, and getting help. In Davao del Sur, for example, 10th graders often have trouble picking the right academic or job path, which can cause them to switch schools or even drop out. Advice and career coaches should help students think about their choices, say Arnado and Posadas (2022). There are still a lot of students who don't know what their skills, views, or the job market are. The same thing was found by Cabanlit (2019) about would-be teachers in Davao City: they didn't like how hard it was for them to move up in their jobs because they didn't have enough teaching materials or mentors. To prepare students for careers in the 21st century, schools should add skills like creativity, communication, and flexibility to their classes and programs.

Local and international studies both show that having 21st-century skills is important for getting a job. Lots of

research has looked at how these skills affect college students' readiness for the future, but not many have looked at it directly. Many studies have looked at what college students do to get ready for work after they graduate (Arnado & Posadas, 2022; Benaning, 2023) but not many have looked at what high school or teacher education students do. Also, past research has only looked at issues with institutions and not how well students' speaking, thinking critically, teamwork, and creative skills actually connect to a measured readiness for work. This study uses a linear explanatory design and both quantitative and qualitative data to find out how these skills help students feel more confident in their own abilities, willing to change, and ready for the workplace.

This study proves that getting an education is an investment in someone's future. Because it is based on Becker's Human Capital Theory from 1960, it stresses that getting schooled and learning new things, especially 21st-century skills, are investments in oneself that make one more useful and earn more in the future. Getting a job is a lifelong process, according to Super's (1957) Life Space Theory. College is a very important time to develop professional personality, values, and confidence. By showing how these ideas work in real schools, this study aims to assist politicians, teachers, and counselors. Its main goal is to support programs that give Filipino college students the skills, mindset, and ability to change that will help them do well in their chosen careers and in a global job market that is changing quickly.

Problem Statement

This study's goal was to look at how BEED (Bachelor of Elementary Education) students' 21st-century skills changed their readiness for work. Teachers needed to know a lot about their subjects and also be able to think critically, be creative, speak clearly, and work with others. The study's goal was to find out how well these skills were developed among BEED students and how they were linked to different parts of career readiness, such as information and skills, motivational and environmental resources, and activities for managing a job. The study used an explanation design that was based on steps. To begin, a quantitative analysis was used to find out how skilled and ready the students were. Next, qualitative notes from the students themselves were used to support and expand on the results. The point was to find out if there was a major link between 21st-century skills and being ready for a career and to find out how students saw and felt about this link. At a 0.05 level of importance, the study looked at the following null hypothesis: There is no strong link between students' 21st-century skills and their readiness for work.

Literature Review

Students' 21st Century Skills

The 21st century has significantly changed society, economy, politics, and culture. Teacher mentoring plays a crucial role as a development method that aligns with the needs of educators in today's world. Additionally, students' backgrounds affect their learning behaviors and activities, which can impact their academic success. Where students come from has a distinct influence on their study habits (Khoiri et al., 2021). Along with these difficulties, many Philippine education students still have much work to do to grasp the 21st-century abilities that are required of them. These students face pressure from various expectations and the daily demands of teaching. They often have to juggle multiple tasks with different goals within a limited timeframe. These skills require self-control, creative and analytical thinking, teamwork, effective communication, self-motivation, building connections locally and globally, and using technology in education (Mugot & Sumbalan, 2019). Assisting students in becoming competent graduates who can thrive in their chosen professions is the school's role. Academic performance, work happiness, well-being, and adaptive outcomes like social adjustment and self-confidence are all linked to career preparation (Amarnani et al., 2018, as quoted by Marciniak et al., 2021). Moreover, the skills required for education and employment in the modern economy are referred to as "21st-century skills". Numerous efforts have created classification systems for these competencies. Three primary skill categories are considered essential today by the Partnership for 21st Century Skills, which was founded in 2007: learning skills, which include creativity, critical thinking, problem- solving, communication, and collaboration; life skills, which include adaptability, efficiency, responsibility, social awareness, and cultural competence; and literacy skills, which include information, media, and technology literacy. A worldwide research program called Assessment and Teaching of 21st Century Skills (ATC21S) was launched. Ten essential skills were identified for this project, which was then categorized into four main areas: thinking (which included critical thinking, creativity, innovation, problem-solving, decision-making, learning to learn, and metacognition); working (which included communication and teamwork); and living (which included information literacy, ICT literacy, citizenship, and life and career skills, as well as personal and social responsibility, as well as working with others). (Binkley et al., 2012, as cited by Caena and Redecker, 2019). Several governmental entities have pushed for the comparability of diverse skill sets. A few 21st-century skills provided by the Organization for Economic Co- operation and Development

(OECD) include information, communication, ethics, and social implications. Ananiadou and Claro, 2009, as cited by Zhao et al., 2021): Despite differences in these elements, an effort has been made to highlight differences in the precise definition, quantity, and subset of included abilities. Furthermore, it was shown by Voogt and Roblin (2012), referenced by Karaca-Atik et al. (2023), that all frameworks include ICT-related skills, collaboration, communication, and social and cultural competencies. Most also acknowledge the value of creativity, critical thinking, and problem-solving abilities. But most 21st-century skill frameworks end here, at the conceptual defining stage. Moreover, given the significance of responsibility for learning and readiness to achieve greater awareness, an APA task force on psychology and education came to the conclusion that improving personal academic responsibility should be the primary educational goal. In this situation, he said, "intelligence and knowledge are not enough" and that schools and students should focus more on finding a balance between responsibility and qualities (Seisa and Galabo, 2023). Furthermore, Jang (2016, cited by Seisa and Galabo, 2023) studied STEM (science, technology, engineering, and mathematics) education and how it imparts the knowledge and abilities required for professions in the twenty-first century. He classified the crucial 21st-century skills he had learned using data from the job. With the development of a new curriculum that connects knowledge to real-world applications, STEM educators are now better prepared to prepare graduates for the workforce. First of all, careers in STEM fields need higher-order cognitive skills, including judgment and decision-making, critical thinking, and problem-solving. They must use their arithmetic and scientific expertise to provide precise solutions to problems. STEM workers must use logic and reasoning to balance the benefits and drawbacks of different solutions. Thus, experts in graduate STEM programs recognize the growing importance of cognitive skills like critical thinking, system thinking, and nonroutine problem-solving in the workplace. According to Koenig, cognitive capacities need the ability to reason.

Extracurricular Activities to Improve 21st Century Skills

In terms of teaching methodologies, project-based learning (PBL) is a relatively new addition, according to Almazroui (2023). PBL draws students in and keeps them interested by drawing on real-world experiences. PBL participants develop the critical thinking, creativity, teamwork, and communication skills required in today's workforce. PBL and moral education are often associated in the United Arab Emirates. Examples are provided to demonstrate the use of PBL in achieving the objectives of this nation's educational program. In conclusion, he recommends using PBL to encourage students to do community service and to impart moral education. Also, Mishra & Aithal (2023) demonstrate how co-curricular and extracurricular activities enhance the 21st-century skills of students. Extracurricular involvement improves experiential learning for students.

Critical thinking

Critical thinking is the capacity to think critically while engaging in activities that raise problems and find solutions (Khoiri et al., 2021). Furthermore, critical thinking is crucial in a global online system where diverse individuals participate and resources are created with varying goals and talents (Starkey, 2011, as cited by Van Laar et al., 2020). In the age of disinformation and fake news, internet content has to be carefully evaluated. People need to understand its origins and nature. Argumentation performance and message quality are prioritized. To retrieve relevant information from incoming internet communications and information, workers must respond rapidly (Dede, 2010, as cited by Van Laar et al., 2020). They must provoke thoughtful reflection on the subjects under discussion and provide convincing arguments that steer the online conversation.

Creativity

According to Khoiri et al. (2021), creativity is the capacity to generate original and appropriate ideas, adjust to various circumstances, think critically, think creatively, respect the community, and be tolerant of other viewpoints. The ability to transform information into new knowledge and digest it is essential. Research from the past has often determined that complex problems need creative solutions (Kaufman, 2013, as quoted by Mitsea et al., 2021). The ability to come up with novel and advantageous concepts for goods, services, or procedures is linked to creativity. According to Abdelfattah et al. (2022), employee creativity is seen as a necessary talent for businesses to lead or adapt to change since it is considered a necessity for long-term organizational success. This is supported by DiLiello and Houghton (2008).

Communication

To communicate effectively, students must be able to express concepts orally by presenting their findings (Khoiri et al., 2021). In the rapidly growing service sector, effective communication is crucial for information transmission and meaning representation that considers the audience and the medium (Ananiadou & Claro, 2009, as quoted by Zhao et al., 2021). Karaca-Atik et al. (2023) cite Voogt et al. (2012) as saying that to traverse the modern social environment effectively, one must balance one's goals and desires with those of the larger community. Because our global economy is interdependent, employers demand that their staff members be proficient communicators.

Knowledge and Skills Resources

Professional experience, job market awareness, and soft skills are examples of knowledge and skill resources (Hirschi et al., 2018, as cited by Marciniak et al., 2021). Awareness of the workplace is one of the knowledge and skill resources often subject to professional maturity assessments, such as the Professional Development Inventory and the Career Factors Inventory (Jawarneh, 2016, cited by Hsu et al., 2021). In particular, Marciniak et al. (2021), cited by Rigotti et al. (2008), state that the knowledge and skills components that assess perceived knowledge, skills, and abilities related to professions should have high positive associations with occupational self-efficacy.

Environmental Career Resources

Careers in the environmental sector might benefit from external assistance such as networks, mentors, and easily accessible social support (Hirschi et al., 2018, as cited by Marciniak et al., 2021). Significant, positive, and moderate relationships were found between the environmental CRQ-A components and the social support scale. Finally, the results show strong correlations with relevant contemporary measures, which support the hypothesis (Marciniak et al., 2021). Hirschi (2009, cited by Jiang et al., 2023) also developed a career exploration scale in German. Six questions (such as "reflecting on personal interests" and "gathering information about interesting career paths") evaluate environmental exploration, whereas four items measure self-exploration activities. We expected that views of support from friends, family, and the school environment would slightly and positively coincide with perceptions of total social support, following Hirschi & Freund (2014, as cited by Marciniak et al., 2021). Finally, Hirschi (2009), cited by Jiang et al. (2023), states that there should be a high and positive correlation between the measures that evaluate the same career exploration activities and the career management behaviors of networking, career exploration, and self-exploration. Adolescent environmental resources, such as parental, social, and educational support, have been the subject of several research (Amarnani et al., 2018, cited by Marciniak et al., 2021).

Motivational Career Resources

Some examples of career resources that might motivate someone include involvement, confidence, and clarity about one's profession (Hirschi et al., 2018, as cited by Marciniak et al., 2021). When it comes to career readiness, research has focused on factors that motivate people, such as self-efficacy (Koivisto et al., 2011, as cited by Kulcsár et al., 2020), attitudes toward planning and exploration (Hirschi et al., 2011, as quoted by Marciniak et al., 2021), and confidence in problem-solving abilities (Jaensch et al., 2016, as cited by Hartmann et al., 2022). Assessing the motivating elements of professional readiness is a key focus of measures centered on the concepts of career maturity, career preparation, and career adaptability. According to Lent et al. (2016), as cited by Jawani Marciniak et al. 2021, we anticipated moderate to strong positive relationships between the motivating components of career participation, confidence, and clarity, and measures of work role relevance, career decision-making self-efficacy, and vocational identity.

Career Management Activities

Career management activities, like professional development, networking, and gathering knowledge about careers, are important parts of being ready for the workforce (Hirschi et al., 2018, as cited by Marciniak et al., 2021). Ålund et al. (2020) stress that getting advice from mentors, looking into job options, and evaluating oneself all help people get ready for work, which is also what St. Clair et al. (2017) say. Also, Wong et al. (2016, as cited by Magagula et al., 2020) say that organized and easy-to-reach career management practices help students get ready for work and have strong links with measures of exploration and self-care (Li et al., 2015, as cited by Jiang et al., 2019). New studies support this by showing how important 21st-century skills like critical thinking, communication, teamwork, and creativity are to job success (Cariaga, 2024; Cariaga, Pospos, & Dagunan, 2024). It is thought that culturally responsive and design-thinking schools make it easier for students to find jobs after they graduate. ICT-based and creative pedagogies also help students be more flexible and solve problems. Also, getting social and emotional support from parents and school guidance increases drive and persistence (Cariaga et al., 2024; Cariaga et al., 2025). Bayo Jr. and Doronio (2025) prove that TPACK predicts teaching competence and digital fluency, which are important for getting ready for work in the 21st century. Sarona-Pedro and Villanueva (2025) and Da-anton and Dioso (2025) show that student behaviors, such as switching classes and using technology, affect engagement. Finally, Juntilla-Amora and Simpal (2025) and Saro et al. (2025) say that leadership and being ready for school are two important factors that affect how well students do in school and how well they are prepared for their future careers.

MATERIALS AND METHODS

Research Design

This study used a mixed-method sequential explanatory design that combined both quantitative and qualitative approaches. The quantitative phase came first to measure the level of 21st-century skills and career readiness among Bachelor of Elementary Education (BEED) students. The qualitative phase followed, aiming to explain

and expand on the quantitative findings through participants' personal experiences. Using mixed methods provided a broader understanding of the issue, as numerical results were supported by in-depth insights from students' stories and reflections (Fetters et al., 2013).

Research Locale

The research took place at Davao de Oro State College – New Bataan Campus, located in Barangay Cabinuangan, New Bataan, Davao de Oro, Philippines. The study focused on students enrolled in the BEED program, which prepares future elementary school teachers.

Sampling Procedures

A total enumeration approach was used in the quantitative phase. All 103 BEED students enrolled in the 2022–2023 academic year were invited to participate. This method ensured that every student in the population had a chance to be represented, avoiding selection bias (Taherdoost, 2016). For the qualitative part, purposive sampling was used to select eight working students who were currently enrolled in the BEED program. Four participated in one-on-one interviews, while another four joined a focus group discussion. This approach allowed the inclusion of participants who could provide meaningful and detailed experiences relevant to the study's goals (Palinkas et al., 2015).

Research Participants

In total, 103 BEED students took part in the quantitative phase, and eight working students participated in the qualitative phase. Students from other programs were excluded to keep the focus specific to the BEED population.

Research Instruments

Two instruments were used to collect data. The quantitative data came from a modified survey questionnaire with two sections. The first section measured students' 21st-century skills, including teamwork, communication, creativity, and critical thinking. The second section focused on career readiness, covering knowledge, career management, environmental awareness, and motivation. Responses were rated on a five-point Likert scale, where higher scores indicated stronger skills or readiness(Doronila & Cariaga, 2025). For the qualitative phase, a semi-structured interview guide was used. Questions centered on how students developed and used their 21st-century skills, and how these skills shaped their sense of career readiness as working students.

Data Gathering Procedures

The study followed ethical research standards at every stage. The researcher first secured approval from the Davao de Oro State College Research Ethics Committee and permission from the BEED department to conduct the study. All participants were informed about the purpose, procedures, and their rights, including the right to withdraw at any time. Questionnaires were distributed to all 103 BEED students, who were given about 25 minutes to complete them. Eight working students were interviewed for 30 minutes each. Sessions were recorded with permission and later transcribed for analysis. Quantitative responses were encoded in Microsoft Excel, while qualitative data were transcribed and organized for thematic analysis.

Data Analysis

The quantitative data were analyzed using descriptive and inferential statistics. The mean was calculated to determine students' overall levels of 21st-century skills and career readiness (Wolff, 2015). Pearson's correlation coefficient (r) was used to examine the relationship between these two variables (Ahlgren et al., 2003). The qualitative data were analyzed using thematic analysis following Caulfield (2019). The researcher became familiar with the data, identified recurring ideas, coded similar responses, and grouped them into broader themes. This process made it possible to understand common experiences among participants. Finally, results from both phases were compared and integrated using a convergent triangulation approach to identify consistencies and differences between numerical trends and personal experiences (Fetters et al., 2013).

Ethical Considerations

Ethical principles were observed throughout the study. Participation was voluntary, and informed consent was obtained before data collection. Confidentiality and anonymity were maintained by coding all responses. Participants were not exposed to any physical or emotional risks, and they were free to withdraw at any point without consequence.

Limitations of the Study

The study was limited to one academic program within a single campus, which may affect how broadly the findings can be applied. The use of self-reported data may also introduce personal bias. Future research could include multiple institutions or longitudinal data to capture how 21st-century skills and career readiness evolve over time.

RESULTS AND DISCUSSION

Table 1: Critical Thinking

Statement	Mean	Descriptive Level

1. I am able to compare from different sources before completing a task or assignment.	4.74	Very High
2. I am able to draw own conclusions based on analysis of facts or relevant information.	4.26	Very High
3. I identify what needs to be known about a problem or answer task.	4.39	Very High
4. I justify the choice made when creating the academic activities by giving valid reasons supported by evidence.	4.48	Very High
5. I assess the usefulness, accuracy, and credibility of information collected for the project.	4.60	Very High
OVERALL MEAN	**4.49**	**Very High**

The five items were found to be very high in the indicator-critical thinking data set, as shown by the data of statements in Table 1. In comparison to other sources prior to finishing a task or assignment, Statement No. 1 received the highest mean score of 4.74, indicating that the student's score was very high. With the lowest mean score of 4.26, statement number two, on the other hand, showed that students were quite inclined to make judgments after analyzing relevant data or facts. Based on a descriptive equivalent, the total mean of 4.49 suggests that students possess extremely high levels of 21st-century competencies. The study confirmed the finding that, given the many aims and abilities of materials generated and the contributions of people, critical thinking is particularly important in a global online setting (Starkey, 2011, as cited by Van Laar et al., 2020). In this day of dishonesty and false news, online material has to be carefully analyzed. Its nature and origins must be understood by everyone. The performance of the argument and the quality of the message are prioritized. Employees need to swiftly go through incoming communications and information from the internet to obtain relevant information (Dede, 2010, as cited by Van Laar et al., 2020).

Table 2: Creativity

Statement	**Means**	**Descriptive Level**
1. I use idea generating techniques such as brainstorming to develop several original design ideas.	4.45	Very High
2. I determine the best design idea from a collection of ideas.	4.29	Very High
3. I use ingenuity and imagination, going outside typical approaches and generating design ideas.	4.29	Very High
4. I create new, unique, and surprising ideas that add my personal touch to the final design idea.	4.44	Very High
5. I stay from typical designs or use common materials or ideas in new ways that are clever or unimagined.	4.48	Very High
OVERALL MEAN	**4.39**	**Very High**

Based on the data shown in Table 2, the statements' indicator-creativity data showed that all five of the items were rated as very high. With the greatest mean score of 4.48 for Statement No. 5, it was clear that students were highly good at avoiding conventional designs and at repurposing ordinary materials or ideas in creative or original ways. The lowest mean score, 4.29, was received by statements two and three. The descriptive equivalent of the overall mean of 4.39 is extremely high, suggesting that students have very good 21st-century abilities. This finding demonstrated that creativity is related to the capacity to generate fresh, appropriate ideas for a variety of contexts, as well as the capacity to think critically, flexibly, creatively, and with respect for others' viewpoints (Khoiri et al., 2021). The ability to come up with novel and advantageous concepts for goods, services, or procedures is linked to creativity. Information must be transferred, processed, and transformed into new knowledge (Kaufman, 2013, as cited by Mitsea et al., 2021).

Table 3: Communication

Statement	**Means**	**Descriptive Level**
1. I answer teachers' questions clearly and completely.	4.41	Very High
2. I am able to express my opinions and ideas in class verbally and non-verbally appropriately to my classmates and teachers.	4.23	Very High
3. I use visual aids such as presentation slides, demonstrations, and other media to present my ideas.	4.40	Very High
4. I am a good listener and gain knowledge from my teachers and classmates.	4.38	Very High
5. I present information and supporting evidence collected clearly, concisely, and logically.	4.50	Very High
OVERALL MEAN	**4.38**	**Very High**

Based on the data shown in Table 3, it can be inferred that the five items in the indicator-communication category scored very well. With the highest mean score of 4.48 for statement number 5, students demonstrated a high level of proficiency in presenting information and supporting evidence logically and succinctly. Statement number two had the lowest mean score of 4.23, indicating that students were able to adequately communicate their thoughts and views to instructors and other students both orally and non-verbally. According to a descriptive equivalent, the total mean of 4.38 shows that the pupils' 21st-century talents are very strong. Based on the results, it was discovered that to successfully transfer information and ensure that the meanings are represented by taking into consideration the audience and the medium, communication skills are essential in the expanding service industry (Ananiadou & Claro, 2009, as cited by Zhao et al., 2021). To successfully navigate the contemporary social environment, one must balance their demands and ambitions with those of the greater society (Voogt et al., 2012, as cited by Karaca-Atik et al., 2023).

Table 4: Collaboration

Statement	**Means**	**Descriptive Level**
1. I help the team solve problems and manage team conflicts.	4.53	Very High
2. I establish team norms to make agreements on how the team works together.	4.30	Very High
3. I set a team schedule and track progress toward goals and deadlines.	4.44	Very High
4. I acknowledge and respect team members' perspectives.	4.38	Very High
5. I give feedback to peers or assess the work of my classmates.	4.54	Very High
OVERALL MEAN	**4.43**	**Very High**

As shown by the data of statements in indicator-collaboration provided in Table 4, the five items were shown as extremely high. With the highest mean score of 4.54 for Statement No. 5, students demonstrated a high level of

proficiency in providing feedback to their peers and evaluating their classmates' work. Statement number two, on the other hand, had the lowest mean score (4.30), indicating that the students came to an agreement on team standards to decide how the team got along. Based on a descriptive equivalent, the total mean of 4.43 shows that students have very good 21st- century competencies. The findings showed that collaboration is related to the capacity for productive group communication and cooperation via discussions and presentations. The results of discussions and assignment distribution among group members enhance collaboration. Respect for one another permits friends to disagree and cooperate on personal ideas (Khoiri et al., 2021).

Mean Scores of the Level of Students' Career Readiness

Presented the mean scores and descriptive level of Students' Career Readiness in terms of knowledge and skills resources, environmental career resources, motivational career resources, and career management activities.

Table 5: Knowledge and Skills Resources

Statement	Means	Descriptive Level
1. I am certain that I have the necessary knowledge and skills for my desired career.	4.62	Very High
2. I have the necessary knowledge and skills to successfully enter my desired career.	4.33	Very High
3. I have many skills that I could apply to different occupational fields.	4.35	Very High
4. I can do many things that are important for my desired occupation.	4.40	Very High
5. I can do many things that are useful in many occupations.	4.41	Very High
OVERALL MEAN	**4.42**	**Very High**

Five elements were reported as extremely high, according to data from indicator knowledge and skills resources, as shown in Table 5. With a mean score of 4.62, statement number one had the highest mean score among the students, suggesting that they were confident they possessed the knowledge and abilities needed for their intended vocation. The students demonstrated that they have the knowledge and skills required to succeed in their chosen vocations by earning the lowest mean score of 4.33 for Statement No. 2. The descriptive equivalent of the overall mean of 4.42 is quite high, suggesting that students are well prepared for the workforce. The results mentioned previously suggest that professional experience, job market knowledge, and soft skills are among the knowledge and skill resources (Hirschiet al., 2018, as cited by Marciniak et al., 2021). Many assessments of professional maturity, such as the Professional Development Inventory and the Career Factors Inventory, focus on knowledge and skills related to working environments, among other things (Jawarneh, 2016, as cited by Hsu et al., 2021). More specifically, occupational self-efficacy should positively connect with the knowledge and skills elements that measure perceived knowledge, skills, and abilities related to vocations (Rigotti et al., 2008, as cited by Marciniak et al., 2021).

Table 6: Environmental Career Resources

Statement	Means	Descriptive Level
1. I can rely on the support of my school to overcome difficulties and challenges in my career development.	4.32	Very High
2. My family provides support in answering my career questions.	4.22	Very High
3. In choosing an occupation, I receive substantial support from my family.	4.37	Very High
4. I can rely on the support of my friends to overcome difficulties and challenges in my career development.	4.29	Very High
5. My friends support me in my career development.	4.44	Very High
OVERALL MEAN	**4.33**	**Very High**

The five components in the indicator-environmental career resources data were indicated as extremely high, according to the data shown in Table 6. Statement number five, which demonstrates that friends assist students in advancing their careers, had the highest mean score of 4.44. Nevertheless, statement number two had the lowest mean score (4.22), suggesting that the student's family is in favor of providing answers to their career-related queries. The descriptive equivalent shows that the total mean of 4.33 is extremely high, suggesting that the student's degree of professional preparedness is also quite high. This result was supported by Hirschi and Freund (2014, as referenced by Marciniak et al., 2021); they anticipated that perceptions of support from friends, family, and the school environment would modestly and favorably correspond with perceptions of overall social support. Hirschi (2009, as mentioned by Jiang et al., 2023) created a scale for career exploration in German. Four items measure self-exploration behaviors, and six measure environmental exploration (e.g., "reflecting on personal interests" and "gathering information about interesting career paths").

Table 7: Motivational Career Resources

Statement	Means	Descriptive Level
1. It is important for me to get training to have an occupation.	4.49	Very High
2. I have clear career goals that match my personal interests and skills.	4.38	Very High
3. I am capable of successfully shaping my intended career.	4.39	Very High
4. I know which occupational field I am intending to pursue.	4.43	Very High
5. I know which occupational field I am intending to pursue.	4.49	Very High
OVERALL MEAN	**4.47**	**Very High**

Five items were identified as extremely high, according to the data of statements in indicator-motivational career resources, as shown in Table 7. With a mean score of 4.49, statements number one and number five received the highest rating. Even yet, statement number two had the lowest mean score (4.38), suggesting that the students had well-defined professional objectives that aligned with their aptitudes and interests. Based on the descriptive equivalent, the overall mean of 4.47 indicates that the student's degree of professional preparedness is quite high.

The results showed that the majority of research on career readiness has concentrated on motivational resources like self-efficacy (Koivisto et al., 2011 as cited by Kulcsár et al., 2020), attitudes toward planning and exploration (Hirschi et al., 2011 as cited by Marciniak et al., 2021), confidence in solving work-related problems (Jaensch et al., 2016 as cited by Hartmann et al., 2022). Measurements based on the ideas of career maturity, career preparation, or career adaptability place a strong emphasis on evaluations of the motivational components of professional preparedness.

Table 8: Career Management Activities

Statement	Means	Descriptive Level
1. I have informed myself about the job market in my desired occupational fields.	4.45	Very High
2. I come across accomplished individuals in their immediate surroundings, such as a family member or a teacher, to gain new skills to advance in my jobs.	4.21	Very High
3. I have collected information about occupations and jobs.	4.44	Very High
4. I have given much thought to what my career interests are.	4.37	Very High
5. I have often thought about what is important to me in an occupation.	4.63	Very High
OVERALL MEAN	**4.42**	**Very High**

The data statements in the indicator-career management activities showed that the five items were displayed as extremely high, as demonstrated in Table 8 data presentation. Statement number five had the highest mean score (4.63), indicating that students were aware of the career path they wanted to take. The students encountered successful people in their immediate environment, including family members or instructors, to acquire new abilities to progress in their careers, according to statement no. 2, which had the lowest mean score of 4.21. With an overall mean of 4.42, students' professional preparation seems to be quite strong, according to a descriptive equivalent. Findings from the study indicate that career management practices such as actively seeking guidance from faculty and advisors, actively exploring career and professional options, or engaging in self-exploration are crucial elements of career preparedness (St Clair et al., 2017, as cited by Ålund et al., 2020). According to Wong et al. (2016), as referenced by Magagula et al. (2020), career management activities have improved career preparedness because they are structured in a relevant, comprehensive, and economical way.

Correlation between Measures

Table 9 illustrates the relevance of the correlation between two variables: career preparedness and the 21st-century abilities of students. The purpose of this research was to ascertain if these two factors had an important connection. We used Pearson-r to test the hypothesis at the significance level of 0.05.

Table 9: Significant relationship between the level of Students' 21st-Century Skills and Students' Career Readiness

Variables	Mean	SD	r– value	p- value	Decision @ $\alpha = 0.05$	Interpretation
Students' 21st- Century Skills	4.32	0.67	.840**	0.000	Rejected	Significant
Students' Career Readiness	4.41	0.68				

The substantial correlation between students' professional readiness and their 21st-century talents is seen in the following table. The two variables that were investigated showed how students' 21st-century abilities affected their preparedness for the workforce. As part of the statistical inquiry, the Pearson correlation coefficient between the two variables was analyzed. The correlation value of.840 indicates the strong positive relationship between students' professional training and their 21st- century competencies. There is a measurable link between the two variables based on the statistically significant positive relationship between their interactions. The very strong positive relationship is also substantial, as shown by the p-value of less than 0.005. It was thus demonstrated that there is no discernible connection between students' professional readiness and their degree of 21st-century abilities. This conclusion is related to research by Amarnani et al. (2018), which was referenced by Marciniak et al. (2021) and found that critical thinking, problem-solving, communication, teamwork, creativity, and innovation are 21st-century talents. These abilities are also necessary for career readiness, which is the capacity to adapt to the demands of a worldwide labor market. The educational institution must support students in becoming competent graduates who can meet the requirements and job description of the position they have chosen to work in. The achievement of one's studies, work happiness, generalized self-efficacy, and other adaptive outcomes have all been connected to career preparedness. Furthermore, Hirschi (2009), cited by Jiang et al., 2023, asserts that measures assessing the same career exploration activities ought to exhibit a strong and affirmative correlation with the career management behaviors of self-exploration, networking, and career exploration (Amarnani et al., 2018 as cited by Marciniak et al., 2021).

Standpoints of the participants on the salient points of the quantitative results

The salient points of this study's quantitative analysis indicate a significant correlation between students' 21st-century skills and their readiness for careers. A Pearson correlation coefficient between these variables demonstrates a highly positive relationship. Examining these variables illustrates how students' proficiency in 21st- century skills influence their preparedness for careers. The participants' perspectives, as shown by IDI P#2, highlighted the important role that 21st-century skills play in preparing college students for the workforce, since they provide them with the skills needed to thrive in it. FGD P#1 also responded, saying that having a grasp of 21st-century abilities would help her prepare for her future in the workforce. It requires excellent critical thinking,

problem-solving, and communication skills to join the sector. According to IDI P#1, having 21st-century abilities also improves our professional preparedness by allowing us to collaborate with others, overcome difficult tasks, and adjust to changing workplace requirements. Furthermore, FGD P#2 stated: "Yeah, having these abilities to think critically, solve problems, and come up with new ideas will definitely help me get ready for the industry." According to FGD P#3, college students may increase their chances of landing a challenging job, strengthen their capacity to apply themselves in the workplace, and better prepare themselves for success in their chosen fields by honing and using these abilities. Based on these standpoints, the participants' diverse perspectives were presented on the salient point of the positive correlation between students' 21st-century skills and students' career readiness. These variables that were being studied revealed how the students' 21st-century skills impacted their career readiness. Presenting these standpoints provides a comprehensive view of the participants' opinions, experiences, and potential areas for further investigation. According to study by Amarnani et al. (2018, cited by Marciniak et al., 2021), critical thinking, problem-solving, communication, teamwork, creativity, and invention are all part of 21st-century skills. Fulfilling the needs of the modern global workforce is a prerequisite for career preparedness, which calls for certain abilities. Educational institutions must help students be ready for success in the careers they want. Research has shown a robust association between career preparation and a range of favorable consequences, including work contentment, overall health, scholastic success, and adaptive abilities like social flexibility and self-assurance.

Qualitative results explain the quantitative results of the study

The quantitative result of this study manifested that there is a significant relationship between students' 21st-century skills and students' career readiness. The two measures' Pearson correlation coefficient demonstrates a high positive link between students' professional preparation and their 21st-century talents. This result is associated with one of the qualitative themes of this study, in which the participants expressed that the 21st-century skills help them to Develop Job Ready Skills. For such. IDI P#2 quoted that "21st-century skills have a significant impact on college students' career readiness as they equip students with the abilities needed to succeed in the modern workforce… and prepared for the challenges of their future careers." Furthermore, FGD P#3 answered that Understanding 21st-century competencies like digital literacy, communication, teamwork, and critical thinking is crucial for preparing college students for the job. Another qualitative theme that explains the quantitative result is, the participants' commonly responded that 21st-century skills aid them to Prepare for Futuristic Career Pursuits. Such as, IDI P#1 said that "21st century skills significantly impact our career readiness by enhancing our ability to face complex challenges, work collaboratively, and adapt to evolving workplace demands… and embrace change, thereby fostering a competitive edge in the job market." As agreed to IDI P#2, IDI P#1 stated "I perceive the impact of my 21st century skills on my career readiness as crucial… possessing these skills will greatly enhance my career prospects and make me a valuable asset to any organization." Correspondingly, FGD P#2 expanded, "Ultimately, these competencies empower me to navigate the complexities and challenges of the professional realm. Therefore, mastering these skills can lead to significant advancements in securing employment and advancing my career. This is not merely a belief but a necessity in today's job market." Lastly, a qualitative theme that explain the quantitative result is that the participants mostly answered that they Establish Self-Confidence in developing 21st- century skills which is essential for their career readiness. As IDI P#4 articulated that, "I believe that my 21st-century skills have helped me prepare for career readiness. They give me confidence in applying for jobs and career opportunities because I understand that I have skills that can be demonstrated and utilized in future roles." Likewise, FGD P#1 elaborated that "The knowledge of 21st-century skills can assist me in preparing for my career. Communication skills, critical thinking, and problem- solving abilities are crucial for entering the workforce. Learning about technology and globalization can prepare me for modern jobs and facilitate my adaptation to an international setting. Ultimately, 21st-century skills provide confidence and aid in my career." The qualitative data supports the quantitative finding of an increased knowledge and skills of 21s-century skills impacted the students' career readiness in the future endeavors. Participants highlighted specific skills and knowledge they gained and developed that directly contributed to their career readiness which help them to enhance and equip their qualities, assets, and competences that corresponds on recent demand job. Additionally, the increased of 21st-century skills of students resulted on the increased of job ready skills, preparation for futuristic career pursuits, and confidence for future career reported by participants align with the quantitative result, as these 21st- century skills can positively influence career readiness of the students. Multiple studies, including ones by Larson (2011) and Sulistyaningsih (2019), have shown that teaching 21st-century skills in the classroom makes students more ready for life and work. Flexibility, adaptability, initiative, self-direction, social and cross-cultural skills, efficiency, accountability, leadership, and responsibility are skills that are becoming more and more important in a job market that is changing significantly (Sulistyaningsih, 2019). Exposure to these skills early on is especially helpful for students because it helps them get ready for the future (Siraj, 2017). Also, real-world studies have shown that

teaching 21st-century skills in schools makes kids much more prepared for the job market in the 21st century. Researchers discovered a strong link between BEED students' 21st-century skills and their readiness for work. Those who were better at critical thinking, creativity, communication, and teamwork were more ready to get a job. Quantitative results showed that students had very high levels of these skills, which meant they were very ready for a career. Qualitative results supported this by showing that students built job-ready skills, confidence, and the ability to adapt through extracurricular and project-based learning. People who took part stressed how important it was to learn 21st-century skills like digital literacy, teamwork, and problem-solving because it helped them get ready for future jobs and do well in modern workplaces. These results support what other studies (Larson, 2011; Sulistyaningsih, 2019; Siraj, 2017; Elçiçek, 2021; Mekala, 2020; Koçak, 2020; Rodriguez, 2020) have found: teaching students 21st-century skills makes them more employable and professional. Overall, the study shows that developing these skills is very important for getting college students ready for the fast-paced, tech-driven global workforce.

College Students' 21st Century Skills

Most BEED college students' responses regarding their 21st-century skills were very high, implying their career readiness level was very high. The data gathered the statements and the overall mean of its indicators: critical thinking, creativity, communication, and collaboration were all very high. The study by Khoiri et al. (2021) revealed that BEED students possess high 21st-century skills. Specifically, they demonstrate proficiency in critical thinking, adaptability, creativity, effective communication, and collaborative group work during presentations and conversations. Continual development of these talents is crucial for both personal and professional success. Numerous studies have revealed that college students have high 21st-century skills at a normal university in central China (Xu et al., 2019). These abilities, essential for success in the contemporary world, include problem-solving, creativity, cooperation, and computer literacy. More research is necessary to pinpoint the precise skills that are most crucial for college students in various subject areas (Imam et al., 2023). According to Tuman (2019), the knowledge economy has changed and now wants inventive, competitive individuals who can work globally. This explains why college students possess such high levels of 21st-century skills. Mahmud (2022) asserts that problem-solving and data literacy are crucial competencies for job preparedness.

Students' Career Readiness

The majority of BEED college students said they were extremely prepared for their careers in their replies, indicating they are very prepared for their jobs. Knowledge and skills resources, environmental career resources, motivating career resources, and career management activities were all extremely high, according to the data collected on the statements and the overall mean of their indicators. The BEED students demonstrated an important finding based on their 21st-century skills: they were becoming ready for their future careers. They equip themselves with knowledge of the labor market and soft skills, as well as external supports such as mentors, networks, and easily accessible social support, involvement, self-assurance, and clarity regarding their career, networking, career information gathering, and continuous career development (Hirschi et al., 2018, as cited by Marciniak et al., 2021). A range of factors contribute to the high career readiness of college students. Dibenedetto & Willis (2020), stress the significance of professional, transdisciplinary, life, and learning skills, whereas Febriani et al. (2022), emphasize the importance of individual desire to attain career objectives. The need for professional maturity in making wise career selections is emphasized by Lailatunnikma & Nastiti (2021). Further investigation into the factors influencing students' perceptions of career readiness was done by Yavuz et al. (2019). These factors include parent education, academic success, gender, country type, and socioeconomic level. Taken together, these studies indicate that the high level of career readiness among college students during this time may be attributed to a mix of external circumstances, skill development, and personal drive.

Experiences of College Students in developing and using 21st-century skills

Based on college students' common experiences as they develop and use their 21st-century skills, two significant themes emerged: Development through Extra- Curricular Activities and Honing through Project-Based Activities. The data analyst identified these two themes thoroughly. The first theme was the widespread belief among BEED students that extracurricular activities help students develop 21st-century abilities. For them, taking part in extracurricular activities is crucial because they provide real-world, experiential learning opportunities to enhance classroom instruction. By assisting students in applying their knowledge to actual circumstances, these activities improve their ability to solve problems and think critically. Students enrolled in BEED programs understand that extracurricular activities contribute significantly to a well-rounded education by developing a variety of skills necessary for success in today's society. These kinds of activities are beneficial for future professional aspirations in addition to personal development. This finding is consistent with research conducted by Shcheglova (2019), which shows that engaging in extracurricular activities helps students enhance their collaborative abilities and increase their interpersonal communication skills. The outcomes may convince faculty members and university administration to consider establishing and advocating for a location where

students may hone their skills and contemplate their acquired knowledge. However, Díaz-Iso et al. (2019) emphasized the significance of voluntary extracurricular activities in fostering reflective thinking that leads to transformative shifts in students' ideas, attitudes, and everyday actions, eventually contributing to sustainability. Therefore, students must engage in social initiatives, collaborating with both classmates and teachers who can foster supportive and trustworthy settings. The BEED students have emphasized the advantage of extracurricular activities in developing skills, and our findings corroborate that belief. In the second theme, the BEED students claimed that they develop and use their 21st-century skills by honing these through project-based activities because engaging in activities like these offers students the chance to solve actual problems, work together, think creatively, use technology, manage themselves, and understand the importance of accountability. Project-based tasks give BEED students a well-rounded learning experience where they can practice and implement the skills needed for career success in modern times. Based on this result, the claim that BEED students may successfully build and increase 21st-century skills through project-based learning is continuously supported by research. Permata et al. (2022) demonstrate how students' learning experiences can be optimized through project-based learning. Students can enhance their non-technical abilities through class projects, such as leadership, adaptability, media literacy, and teamwork. Learners can refine their skills by observing the dynamics outside of the classroom. Students can use the knowledge they have gained to solve the challenges they have encountered, which makes this strategy effective. In addition, students are permitted to use their imaginations while generating finished products from practiced class assignments. In addition, Aifan (2021), went on to show how much these abilities may be enhanced by project-based collaborative learning with the use of technology, such PowerPoint. Finally, Ekizer & Yildirim (2023), emphasized that project-based learning may help create dynamic and interesting learning settings, which are critical for the development of these abilities.

Challenges of students encountered in developing and using 21st-century skills

Based on the common challenges college students encounter in developing and using their 21st-century skills, three significant themes emerged: Lack of Practical Application, Limited Educational Resources, and Overlapping Students' Workload and Schedule. The data analyst identified these three themes thoroughly. The first challenge or problem for BEED students is the need for more practical application. This becomes a challenge in developing and using their 21st-century skills because many students are unaware of how these skills are relevant in real-world situations. Students need to connect these skills to real-life contexts to ensure they understand their practical value and usefulness. Many studies have shown that one of the biggest challenges facing BEED students is the need for them to use 21st-century abilities more practically. Implementing these abilities, especially in communication, might be difficult for instructors and students in vocational education, according to Mutohhari's (2021) study. Fitriati (2021) agreed, pointing out that these are skills that college students find difficult to learn. Saavedra (2012) emphasized that a relevant and interesting curriculum is necessary to address this problem. Louis (2021) proposed integrating project-based learning into the undergraduate curriculum to incorporate these competencies. Together, these studies show how important it is to provide BEED students with interesting, relevant, and useful methods for developing and using 21st-century abilities. Secondly, the limited educational resources also challenge the college students because they hinder their acquisition of essential 21st-century skills. This limitation restricts their access to educational opportunities and proficiency in coding, data interpretation, and digital literacy. Additionally, this can lead to a lack of exposure to relevant data, tools, and methods necessary for effectively learning and applying 21st-century skills. Fitriati and Prayudi (2021) focused on the scarcity of educational resources students face while obtaining 21st-century abilities. Mutohhari (2021) emphasizes the challenges related to vocational education, specifically. Sherouk & Raad (2020) emphasize that incorporating digital technologies into the curriculum poses a difficulty that necessitates teachers to possess proficiency in their use, which is sometimes hindered by limited resources. To tackle the issue of limited resources in developing 21st-century skills, Louis et al. (2021) propose using project-based learning as a viable solution. The third challenge or problem BEED students face in developing and using their 21st-century skills is overlapping workloads and schedules, which can significantly limit their ability to do so. Students focus primarily on completing assignments, studying for exams, and attending classes, leaving little time and energy for activities that promote these skills. Additionally, many students have part-time jobs or other commitments, such as family responsibilities, reducing the time for skill development. The challenge of overlapping students' workloads and schedules in developing 21st-century skills is a complex issue that requires a multifaceted approach, which was found in many studies. Hui et al. (2020) highlight students' time and task management challenges while emphasizing the value of project-based and extracurricular learning in developing these abilities. Motogna et al. (2022) emphasize the significance of these obstacles, especially in virtual and remote learning settings, and the requirement for approaches to alleviate them. These studies address these issues with a more comprehensive strategy incorporating project-based and extracurricular learning and efficient time management and communication techniques.

Impact of 21st-century Skills to Students' Career Readiness

College students realized how 21st-century skills impacted their career readiness, and three significant themes emerged: Develop Job-Ready Skills, Prepare for Futuristic Career Pursuits, and Establish Self-Confidence. The data analyst identified these three themes thoroughly.The participants said that their 21st-century talents guaranteed their readiness for success in the current labor market, so they influenced the development of work-ready skills. These vital abilities provide students with the edge they need to succeed in the contemporary workforce, increasing their employability and laying the groundwork for success in their chosen industries. For BEED students to become career-ready, they must acquire 21st-century competencies to build employable talents. These abilities include critical thinking, problem-solving, emotional intelligence, collaboration, and communication (Savitri et al., 2021). However, the provision of these abilities by educational institutions necessitates a redesign of the curriculum. The development of these skills may be influenced by teaching and learning tactics, with active strategies having a positive effect (Lavi et al., 2021). These abilities are particularly important in the context of Industry 4.0 as they are necessary for professional success (Rahmat, 2019). The participants also said that their 21st-century abilities helped them become ready for careers in the future. These skills are necessary for success in modern, globally interconnected, and technologically advanced enterprises. By giving students the flexibility, imagination, and problem-solving skills required to succeed in ever- changing job responsibilities, they ensure their success in a dynamic and quickly changing workplace. According to research, providing BEED students with 21st-century abilities will help them become more prepared for careers at the cutting edge of the workforce. According to Garingan (2021), there is a considerable correlation between these talents and socio-demographic characteristics, which are consistently developed. This is consistent with the viewpoint of Malaysian undergraduate students, who believe that having 21st-century skills is essential to being prepared for the workforce (Mahmud & Wong, 2022). However, DeKooy et al. (2017) emphasize further study of the particular abilities needed for employment. These studies highlight how crucial 21st-century abilities are to preparing BEED students for future professional endeavors. Lastly, the BEED students claimed that their 21st-century skills gives impact to establish their self-confidence as these skills aid in the development of greater self- confidence and self-awareness among students, enabling them to communicate more effectively, solve problems with greater efficiency, build resilience, and unlock their full leadership capabilities. By cultivating this heightened self-assurance, students are better equipped to face challenges, seize opportunities, and achieve success in their respective career paths. Studies have shown that career readiness requires 21st-century abilities including self-confidence (Oktaviani et al., 2021). Numerous approaches, such as the ARCS learning model, career readiness programs (Makki et al., 2023), and career development learning (Yang & McKenzie, 2018), may be used to build these abilities. However, these approaches' efficacy may differ, with active approaches having a stronger influence on domain-general abilities (Lavi, 2021). As a result, BEED students should possess these skills to improve their workforce preparedness.

Convergence of Data

The degree of college students' 21st-century skills, including critical thinking, creativity, communication, and collaboration, as well as their level of career readiness, including their use of environmental, motivating, and career-management resources as well as knowledge and skills resources, were all highly rated in the 40-item adapted research questionnaire, the researcher's data collection revealed. The majority of students scored very well overall and agreed with every point in the poll, according to the data's mean score. There are specific and common experiences that the students encountered by the BEED students as they developed their 21st-century skills to increase their career readiness. They claimed that developing their 21st-century skills will surely help students build their job-ready skills, prepare for futuristic career pursuits, and establish their self-confidence for their career readiness. Aside from these positive impacts of 21st-century skills, the participants also experience negative sides, such as lack of practical application, limited educational resources, and overlapping students' workloads and schedules. These will be overcome as they can continue developing their 21st-century skills through extra-curricular activities and honing them through project- based activities. The experiences that BEED students have as they acquire and use 21st-century skills, such as being prepared for the workforce, may corroborate the data gathered via survey questionnaires, or the qualitative data can supplement the results of the quantitative study. Said another way, the students' experiences may support the poll results, showing how 21st-century abilities affect their preparedness for the workforce. The extremely high mean score of the two factors suggests that the individuals were well prepared for careers in the twenty-first century. The themes from the students' interview replies also supported this finding. The presence of divergence or convergence in the data could have been observed by categorizing and organizing the quantitative instrument according to the structured themes derived from the qualitative approach.

Conclusion and Recommendations

The study shows how important 21st-century skills like critical thinking, communication, collaboration, and creativity are for getting education students ready for their future jobs. The results showed that BEED students were very good at these skills, which made them much more ready for their future careers. This fits with Becker's (1960) Human Capital Theory, which says that education and training are important investments for future employability, and Super's (1957) Life Space Theory, which says that college is a key time to explore and grow careers. By connecting what we know about theory to what we can do in the real world, this study shows that improving 21st-century skills helps students grow as people, become more flexible, and be ready for the needs of the global workforce. Now that we know these things, schools, teachers, and guidance counselors should keep pushing project-based learning, mentoring programs, and career-focused activities that help kids learn 21st-century skills. To give students seminars, internships, and real-world training that meets the needs of the job market, schools should work with business partners and government bodies like the Department of Labor and Employment (DOLE). In the same way, students should actively seek out hands-on learning opportunities like jobs and community service to improve their skills. Researchers in the future should make this study bigger by looking at more schools and institutions and the long-term effects of 21st-century skills on getting a job and doing well at it.

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