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| RESEARCH ARTICLE

Assessing the Integration of 21st Century Skills in Purposive Communication: Basis for a Skill-Based Module

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| ABSTRACT
The study aimed to assess the integration of 21st century skills in Purposive Communication, specifically communication, creativity, critical thinking, and collaboration skills or the 4Cs. The study used a descriptive correlational research design in which the respondents were chosen using the stratified probability sampling design. A total of 480 became the final number of respondents based on the data retrieved from the online survey. The data collected were tabulated and processed using the Statistical Packages for Social Sciences (SPSS) Version 23 and Graph Pad InStat Version 3. Data were analyzed and interpreted using Frequency and Percentage Distribution, Mean Score and Descriptive Interpretation, One-Way Analysis of Variance and Independent T-Test. Results of the study revealed that there was a significant difference with regard to the 21st century skills integration in Purposive Communication when grouped according to respondents' category profiles. The findings of the study paved the way for the development of the module titled "21st Century Skills-Integrated Module in Purposive Communication". The module was designed to highlight authentic materials and real-life tasks to make learning relevant and experiential. With these activities, students are expected to develop the life skills necessary to prepare them for future careers and thrive in the workplace.

| KEYWORDS

21st century skills, communication, creativity, critical thinking, collaboration

| ARTICLE INFORMATION

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1. Introduction

Teaching in the 21st century necessitates the inclusion of essential skills, tools and technology to prepare students for their future (Nkhambule, 2019). According to the American Association of Colleges of Teacher Education (2008), "mastery of the 21st centuries skills such as critical thinking, problem solving, communication, collaboration and creativity and innovation must be embedded in instruction to meet the demands of the global economy" (p. 6). That's why the integration of these 4Cs of 21st century learning skills in the curriculum is crucial to effect a change in the current educational system in terms of its goals and objectives, target skills and course offerings, as well as the teaching strategies and learning activities. Such changes are in response to the needs and demands of employers needed in various businesses because sheer knowledge is not enough (Bialik et al., 2015) but the development of those skills to prepare the students for their careers (Alismail & Patrick, 2015).

In the P21 Framework, which was a product of the interviews conducted with business, government and education leaders across fields at the Partnership for 21st Century Skills in the United States in 2002, four essential skills were identified, namely: critical thinking and problem solving, communication, collaboration and creativity and innovation (p21). In the comparative analysis of the various frameworks conducted by Voogt and Robin (2010), they posited that the frameworks showed some semblance relative to 21st century skills, namely: collaboration, communication, ICT literacy, and social and/or cultural competencies, including

citizenship, with ICT at the core (p.3). Common among the frameworks of 21st century skills are the 4Cs, namely: critical thinking, communication, collaboration and creativity and innovation and ICT.

In addition, the inclusion of the aforesaid competencies, otherwise known as soft skills, was mandated because these are the skills that educational institutions need to develop among their students to increase their employability (Robles, 2012; Yang, 2015; Messeum et al., 2016).

In the Philippines, changes in curriculum and educational practices as a whole happened when the Commission on Higher Education (CHED) issued CHED Memorandum Order (CMO) No.20, series of 2013, also known as the "General Education Curriculum: Holistic Understandings, Intellectual and Civic Competencies." This aims to develop in the students "intellectual competencies—critical, analytical, and creative thinking and multiple forms of expression---and civic capacities demanded of members of community, country and the world" (ched.gov.ph>cmo-20-s-2013). These skills, which are in congruence with the learning competencies for Purposive Communication, are essential tools that will equip graduate students to get employed and become effective workers and citizens of their countries (Ananiadou & Claro, 2009). Evidently, effective integration of the 4Cs of 21st century skills in Purposive Communication is vital in the attainment of the course objectives, improvement of the quality of education (Abulencia, 2018) and employability of students (Greiff et al., 2015).

Knowing the crucial role that 21st century skills play in the education of students is one thing, but its integration in the different subject areas, particularly in Purposive Communication, is another thing. It requires the same skills from the teachers who are the facilitators of learning and the ones tasked to develop these skills, the students (Benbow et al., 2020). Before they can even teach the course from the perspective of 21st century skills, they must first learn how much can be effectively done, and before they can make the students develop the skills, they must develop them first. In addition, they must take on different roles---not just as facilitators of learning but also as coaches and counsellors. To be able to do so, it would require extensive training, networking and sharing of the best practices with other teachers (Burakgazi et al., 2019).

Although several research has been done on 21st century skills, little was conducted on the assessment of the extent of its integration in a particular subject. There was a research that explored the use of different pedagogies and approaches in the teaching of 21st century skills, like Popular Music Pedagogies (PMPs), which addressed 21st-century knowledge and skills through engaging with the music that students chose and created (Vasil et al., 2018), the utilization of information and communication technologies (Kivunja, 2015) and the use of serious games in developing and sustaining 21st century skills (Romero et al., 2014), as well as the evaluation of the 21st century skills (Silva, 2018). However, the crux of the problem is the integration of these core competencies in the teaching of Purposive Communication.

In the study conducted by Nehring et al. (2019), teachers appeared to have some misconceptions of 21st century skills as they "unintentionally deployed those misconceptions to reinforce the narrow and shallow skill set associated with test-based accountability". In another study conducted by Saavedra and Opfer (2012), transmission model education was found wanting because it only allowed students to learn information but not the application of the knowledge learned in real–life situations. Still, another study reinforced the lack of context-specific understanding of teaching practices as a key challenge in bringing about desired improvements (Kim et al., 2019). One of the core principles of the 21st Century Knowledge and Skills in Education Preparation crafted by the American Association of Colleges for Teacher Education (AACTE) in 2010 was that "higher education leaders must collaborate with leaders in P-12 and local communities to meet the needs of the 21st century learners" (p.4). Teachers and even administrators have realized the usefulness of 21st century skills in order to improve the quality of education and the effectiveness of classroom instruction. Similarly, teachers play a key role in making the 21st century skills work for the benefit of the students who will use them for their future employment.

There is no question regarding the merit of 21st century skills as key components of the curriculum. However, assessing the extent to which these skills have been integrated into a course by teachers and the extent to which they are developed by students through the instruction and practices received are deemed important to further improve the instructional materials and the delivery of instruction toward lifelong learning experiences for the students. Hence, this study aimed to look into the extent of the integration of the 4Cs of 21st century skills in the teaching of Purposive Communication from the perspective of the teachers teaching Purposive Communication and the students receiving instruction from the teachers. The findings of the study became the basis for crafting a skill-based module for the subject of Purposive Communication.

2. Literature Review

It has been proven that 21st century skills impact teaching and learning as they are deemed important in the improvement of the quality of instruction and whose growing importance in curricular and policy reforms has been widely recognized.

2.1 21st Century Skills and Their Importance

Twenty-first century skills are the "new competencies" which are demanded not only by employers but by society as well which educational institutions need to develop among the students for their future jobs or careers (Voogt & Robin, 2010). These involve a wide range of skills and professional qualities like communication skills, collaborative skills, individual learning approaches (critical thinking, metacognition and new skills acquisition), individual autonomy (flexibility, adaptability and entrepreneurship) and ICT and digital literacy. These are the skills, along with the other competencies which are necessary to sustain a knowledge society (Salamanca, Agudelo & Salinas, 2020). That's why educational institutions find it necessary to focus on equipping their students with skills and knowledge essential to providing them with lifelong learning (Shum & Crick, 2016). Other learning institutions even use interdisciplinary curriculum (IC) to teach the 21st century competencies along with the application of transdisciplinary skills (Drake & Reid, 2020).

Integration of the 21st century skills in the discipline-based curriculum is a welcome change in the educational system, which the Partnership for 21st Century Skills organization promotes since it is a blend of content knowledge, specific skills, expertise and literacies (Partnership for 21st Century Skills). Not only does it respond to the demands of the current educational trends, but it also addresses the needs of the students to be able to compete globally (Boulden, 2021). These 21st century skills are the skills, knowledge and expertise students must master to succeed in work and life. They consist of three areas: (1) learning and innovation skills; (2) digital literacy skills; and (3) personal and professional skills (AMA, 2010). They involve higher-order thinking skills like creativity, problem solving, and information and communication technologies (ICT) literacy, along with communication, collaboration and critical thinking (Partnership for 21st Century Skills). The term is oftentimes associated with "life skills", "soft skills", and "digital skills" (Joynes, Rossignoli & Amonoo-Kuofi, 2019) which encompass a wide range of skills and attributes of professionals (Chalkiadaki, 2018). According to Voogt and Roblin (2010, 2012), 21st century skills are the "new competencies" that students should be trained for their future jobs or careers. Ananiado & Claro (2009) added that these competencies are important for students to become effective workers as well as citizens in their respective communities or societies and help prepare them to succeed as they enter into ever-changing and growing work environments (Boulden, 2021). However, it is not the terminology that matters but the vital role it plays in the educational system and how students will be helped to better prepare them for the future (Lee & Tan, 2018; Binkley et al., 2012; Griffin et al., 2012).

Different frameworks of 21st century skills have emerged from the results of the various studies, like that of the P21 Partnership for 21st Century Learning (2015), which is "a blend of content knowledge, specific skills, expertise and literacies". This involves the essential skills such as critical thinking, communication, collaboration and creativity (4Cs) under the learning and innovation skills which comprise the key knowledge instruction. Combined with the other programs---standards and assessments, curriculum and instruction, professional development and learning environments—these are believed to be crucial for students to master in order to succeed in this world.

Although the study adopted the P21 Framework, there were other frameworks which highlighted the 21st century skills. One of these was mainly the product of observation, understanding and experience, the Assessment and Teaching 21st Century Skills (ATC21S). This was an international collaborative project that involved the participation of the academe, government and three major technology companies.

For Trilling and Fadel (2009), core skills relative to 21st century learning and occupations were highlighted in the 21st Century Skills: Learning for Life in Our Times, where it was emphasized that those are the skills needed by students to thrive as individuals and employees of the 21st century. They presented the key domains along with the essential skills for 21st century learning and occupations. The core subjects and skills include reading, writing and numeracy; learning and innovation skills: critical thinking, problem solving, communications, and creativity and innovation; career and life skills: collaboration and teamwork, leadership and responsibility, initiative and self-direction, flexibility and adaptability; social and cross-cultural interaction; career and learning self-reliance, and productivity and accountability; digital and literacy skills: computing literacy, information literacy, ICT literacy; and media literacy key domains/ essential skills for 21st century learning and occupations (Summary of 21st Century Skills from Trilling & Fadel, 2009). These skills are almost always a part of the teaching-learning process; however, they are taken in a different light in this digital age (Kucirkova & Littleton, 2017).

Truth be told, these lifelong learning skills should be emphasized in the different learning institutions by integrating them into the pedagogical approaches and classroom activities that provide students opportunities to learn at their own pace and encourage collaborative skills and student involvement in assessment. By developing these skills, students will have an advantage in an industrial society (Voogt, 2008).

2.2 Communication Skills

Communication, both oral and written, is one of the macro skills that involves "language and presentation of ideas" (Joynes, Rossignoli & Amonoo-Kuofi, 2019) and which students need to acquire in order to perform well in school and succeed in this

globalized economy (The North Central Regional Education Laboratory (NCREL) and the Metiri Group, 2003). Even if other professions do not require proficiency in communication, it is still an important component of the skills that students should be equipped with because they will have to communicate in the workplace as they interact and build relationships with their co-workers (Bialik, Trilling, Fadel & Nilsson, 2015). However, it is not taken as a separate entity, for it is related to and involved in the other macro skills such as speaking, listening, writing and reading. When one engages in any of the said macro skills, communication is always part of the process. It is also considered a part of the "generic skills" that educational institutions, especially higher educational institutions, should strive to develop among their students, specifically the graduating students so that they can compete in the global market (Rahman, Bunian, Ruhizan, Yasin, Izham & Hamzah, 2011). This is likewise considered as one of the 21st century skills. In fact, in a study conducted by Mishra & Mehta (2016) on "What We Educators Get Wrong About 21st-Century Learning: Results of Survey," participants considered communication as one of the most important. However, it is not only communication but effective communication that will make students gain an edge over others (Tang, Mao, & Zhang, 2021).

With online teaching as the current trend in education brought about by the pandemic, online communication has been found important and useful. Communication tools like email, Twitter, and Messenger serve as venues for communication with different audiences (Larson & Miller, 2011). Communication goes hand in hand with collaboration because it will only find its use as one collaborates or works with others. In working with others to achieve a particular end or goal, communication plays a crucial role. According to Larson & Miller (2011), in the 21st century classroom, communication is involved when students collaborate in online and offline environments.

2.3 Collaboration Skills

With the passing of time, it has been proven that collaboration is preferred in getting the work done, may it be in education or employment. Collaboration is defined as working together and putting talents, skills and expertise towards the attainment of a common goal (P21 Framework); thus, it includes "management of group activities and social interaction" (Rossignoli & Amonoo-Kuofi, 2019). It is highly encouraged because the exchange of ideas and skills of other members of the group ensures a much better output and improved relationship (Johnson & Johnson, 2009; Tyler & De Cremer, 2005), especially in solving complex problems because of the different skills, varied backgrounds and multiple perspectives of the members involved in collaborative work. It is regarded as an important component for "creating new value" (OECD, 2019, cited in Tang, Wang & Hong Zhang, 2021) and increasing learning outcomes and improving self-confidence. One value which is a by-product of collaboration is shared responsibility and accountability for the learning of the members of the group because the classroom is said to be an "interactive social environment" which allows for the exchange of ideas (Siera, 2010). Since the group working together engages in interactive discussion, open-mindedness should be exhibited by the members (Bialik, Trilling, Fadel & Nilsson, 2015) that even when they have different perspectives and opinions, they must agree on a common ground after careful deliberation and consideration to ensure a positive outcome. Teamwork which is also referred to as collaboration, is also another value which serves as an avenue for people to work toward the desired results.

Aside from the values created and developed through collaboration, it also helps in enhancing students' macro skills like listening and speaking, which are crucial in any collaborative work (Bialik, Trilling, Fadel & Nilsson, 2015). No work done in collaboration with others will ever succeed in the absence of at least these two macro skills.

However, not all activities done collaboratively by students work successfully. In the research conducted by Schulz-Hardt & Brodbeck (2008), it was noted that groups could not maximize their potential because of their individual differences. It is a known fact that there are still students who are not comfortable working with others and that they perform better alone than in a group. But considering the importance of collaboration as a skill that students need to acquire and develop, teachers should make an effort to encourage the students to work with the group and see the value of working collaboratively and develop communication skills in the process, along with creativity and problem-solving skills (Ahmadi & Besancon, 2017; Wals & Dillon, 2015).

2.4 Creativity and Innovation Skills

Traditionally, creativity is a skill associated with the arts and music (Bialik, Fadel, Bogan & Horvathova, 2015). But with the passing of time and in this digital generation, creativity has been directly involved with innovation skills. According to Ravitz (2014), creativity and innovation skills refer to students being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combining or presenting what they have learned in new and original ways. These are skills that will allow the showcase of the students' inventiveness to come up with their own original output or solution to a given problem. These are skills very much related to excellence because, according to John Gardner, "Excellence is doing ordinary things extraordinarily well." Moreover, these are considered essential elements in almost all subject areas in mathematics (Kattou, Kontoyianni, Pitta-Pantazi, & Christou, 2013) when students arrive at the same answers using different methods, even in time management (Zampetakis, Bouranta, & Moustakis, 2010), as students exhibit unique ways of planning how they can productively manage their

time to their own advantage. Indeed, creativity and innovation skills hold a great influence not only on the students' learning but even in their lives as well. As such, they are regarded as essential competencies (Partnership for 21st Century Skills, 2019).

For teachers to develop creativity among students, they need to be provided with a broad spectrum of activities. P21 Century Skills enumerated ways by which creativity and innovation skills may be developed---by thinking creatively and working creatively with others:

2.5 Critical Thinking Skills

One of the four 21st century skills highlighted by The North Central Regional Education Laboratory (NCREL) and the Metiri Group (2003) is inventive thinking, also known as critical thinking, which refers to the students' ability to process and apply higher order thinking skills in complex situations. It is an "intellectually disciplined process of actively and skilfully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from or generated by observation, experience, reflection, reasoning or communication, as a guide to belief and action" (The National Council for Excellence in Critical Thinking, cited in (Bialik, Fadel, Bogan & Horvathova, 2015). The idea of critical thinking skills is present in anything that involves knowledge as the students engage in activities where they are required to process information and apply sound reasoning, which is involved in solving problems. Thus, critical thinking skills go hand in hand with problem solving skills. Being able to ask questions, reason effectively, and show curiosity are key elements of critical thinking (Saleh, 2019).

3. Methodology

The study was conducted in a government higher learning institution in Bulacan. The researcher, being an instructor in Purposive Communication in the said institution, decided to look into the practices of her university in terms of the integration of the 4Cs of 21st century skills in Purposive Communication since the module which was the output of the study was intended for the students in that university. The respondents were both the faculty and the students who taught Purposive Communication and took the subject in the second semester of AY 2021-2022, respectively.

The respondents were chosen using the stratified probability sampling design. They were divided into subgroups or strata according to their colleges and their courses. A simple random sampling was used to determine the sample for each subgroup. A total of 480 became the final number of respondents based on the data retrieved from the online survey. The study made use of the descriptive correlational research design since its main purpose was to determine the correlation between variables. Correlational research is a non-experimental quantitative design in which the researcher applies "correlational statistics to measure and describe the degree of association among variables or sets of scores" (Creswell, 2012, p.338). Further, they attempt to find relationships between the characteristics of the respondents and their reported behaviors and opinions (Marczyk et al., 2005).

In order to achieve the objectives of the study, the survey method using a standardized questionnaire based on Jason Ravitz's "A survey for measuring 21st century teaching and learning: West Virginia 21st Century Teaching and Learning Survey [WVDE-CIS-28]" (2014) was utilized as the mode of data gathering for the faculty. The same instrument was used for the students, although its version was done from the perspective of the students. Moreover, additional questions were added after being validated by experts in the field to find out the views of both the faculty and the students relative to the ways they thought the 4Cs could best be integrated into the course. The 4C's—Critical Thinking, Communication, Collaboration and Creativity were primarily the focus of the 21st century skills as reflected in the survey questionnaire adopted from Jason Ravitz.

The questionnaire was composed of four (4) sections. Section I was on the profile of the respondents. Section II included sets of questions about the teaching practices and frequency of the 4Cs of 21st century skills integration and implementation in the teaching of Purposive Communication. The first was a general question, and under it were sub-questions asking the frequency or how often the teachers used the skills in classroom activities and how often the students performed the skills as they were integrated into classroom activities. Section III was intended to find out the factors and approaches that helped enhance the integration and implementation of 21st century skills. Lastly, Section IV delved into the importance of the integration and implementation of 21st century skills from the perspectives of both the faculty and the students.

The data collected were tabulated and processed using the Statistical Packages for Social Sciences (SPSS) Version 23 and Graph Pad InStat Version 3. Data were analyzed and interpreted using Frequency and Percentage Distribution. Mean Score and Descriptive Interpretation, One-Way Analysis of Variance, and Independent T-Test.

This research opted to determine the 95% confidentiality of the study with a 5% degree of error, and set at P-values of <0.05 was assumed statistically significant.

4. Results

4.1 Profiles of the Respondents

`Table 1. Frequency and percentage distribution based on the profile of the respondents

Profile of the Respondents	Parameter	Frequency	Percent
Respondents' Category	Student	429	89.4
	Faculty Member	51	10.6
Students' College Profile	College of Education	19	4.0
	College of Science	166	34.6
	College of Industrial Technology	207	43.1
	College of Hospitality and Tourism Management	37	7.7
	College of Arts and Letters	13	2.7
Faculty Members' Number of Years in Teaching	10 years and below	35	68.6
	11 to 15 years	4	7.8
	16 to 20 years	5	9.8
	21 to 25 years	6	11.8
	31 to 35 years	1	2.0

As shown in Table 1, among the 480 respondents, 429 were students, and 51 were teachers. The students' and teachers' profiles were further broken down according to the students' colleges and the teachers' number of years in teaching.

4.2 Assessment of the respondents on the 21st century skill integration in Purposive Communication in relation to:

4.2.1 Critical Thinking Skills

Table 2**.** Mean score and descriptive interpretation on the assessment of the respondents on the 21st century skills integration in Purposive Communication in relation to Critical Thinking Skills

Statement	Mean Score	
	Teachers	**Students**
For the teachers: In the teaching of your Purposive Communication class, how often have you asked students to do the following: For the students: In class, how often do you do the following?		
Compare information from different sources before completing a task or assignment?	4.76 Always	4.05 Often
Draw their own conclusions based on analysis of numbers, facts, or relevant information?	4.50 Always	3.78 Often
Summarize or create their own interpretation of what they have read or been taught?	4.66 Always	4.00 Often
Analyze competing arguments, perspectives, or solutions to a problem?	4.33 Often	3.82 Often
Develop a persuasive argument based on supporting evidence or reasoning?	4.34 Often	3.49 Sometimes
Try to solve complex problems or answer questions that have no single correct solution or answer?	4.61 Always	4.21 Often
Average Mean	**4.53** **Always**	3.93 Often

From the given statements from teachers, two items had a remark of **often** and three with **always.** Meanwhile, all the students' responses had a remark of **often** except for one statement. Although the overall average mean of 4.53, students had a lower mean

of 3.93, which indicated that though they **often** performed such tasks, it was not the same as the way the teachers perceived it. Overall results showed that students were provided with activities that would further develop their critical thinking skills, and teachers were aware of their importance in students' learning.

4.2.2 Collaboration Skills

Table 3**.** Mean score and descriptive interpretation on the assessment of the respondents on the 21st century skills integration in Purposive Communication in relation to Collaboration Skills

Statement	Mean Score	
	Teachers	**Students**
For the teachers: In your teaching of your Purposive Communication class, how often have you asked students to do the following: For the students: In class, how often do you do the following?		
Work in pairs or small groups to complete a task together?	4.51 Always	3.70 Often
Work with other students to set goals and create a plan for their team?	4.02 Often	3.67 Often
Create joint products using contributions from each student?	4.13 Often	3.70 Often
Present their group work to the class, teacher or others?	3.94 Often	3.68 Often
Work as a team to incorporate feedback on group tasks or products?	4.49 Often	3.65 Often
Give feedback to peers or assess other students' work?	3.53 Often	3.50 Often
Average Mean	**4.04 Often**	**3.65 Often**

It can be gleaned from Table 3 that all statements had the same descriptive interpretation of *"Often or Most of the Time"* except for one statement from students. It can be noted that students only gave feedback to peers when required by their teachers.

The resulting average mean with regard to the assessment of the respondents in Collaboration Skills was 4.04 for teachers and 3.65 for students, which had both an interpretation of "Often". Though the generated mean score for Collaboration Skills was much lower compared to the other skills (which may be because of the limitations of online classes), it can be said that teachers were able to include the above-mentioned skills in their instructional approaches, methods and activities.

4.2.3 Communication Skills

Table 4. Mean score and descriptive interpretation on the assessment of the respondents on the 21st century skills integration in Purposive Communication in relation to Communication Skills

Statement	Mean Score	
	Teachers	**Students**
For the teachers: In the teaching of your Purposive Communication class, how often have you asked students to do the following: For the students: In class, how often do you do the following?		
Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?	4.20 Often	3.40 Sometimes
Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)?	4.75 Always	3.87 Often
Prepare and deliver an oral presentation to the teacher or others?	4.50 Always	3.58 Often

Answer questions in front of an audience?	4.58 Always	3.77 Often
Decide how they will present their work or demonstrate their learning?	4.47 Often	3.97 Often
Average Mean	**4.50** **Always**	3.72 Often

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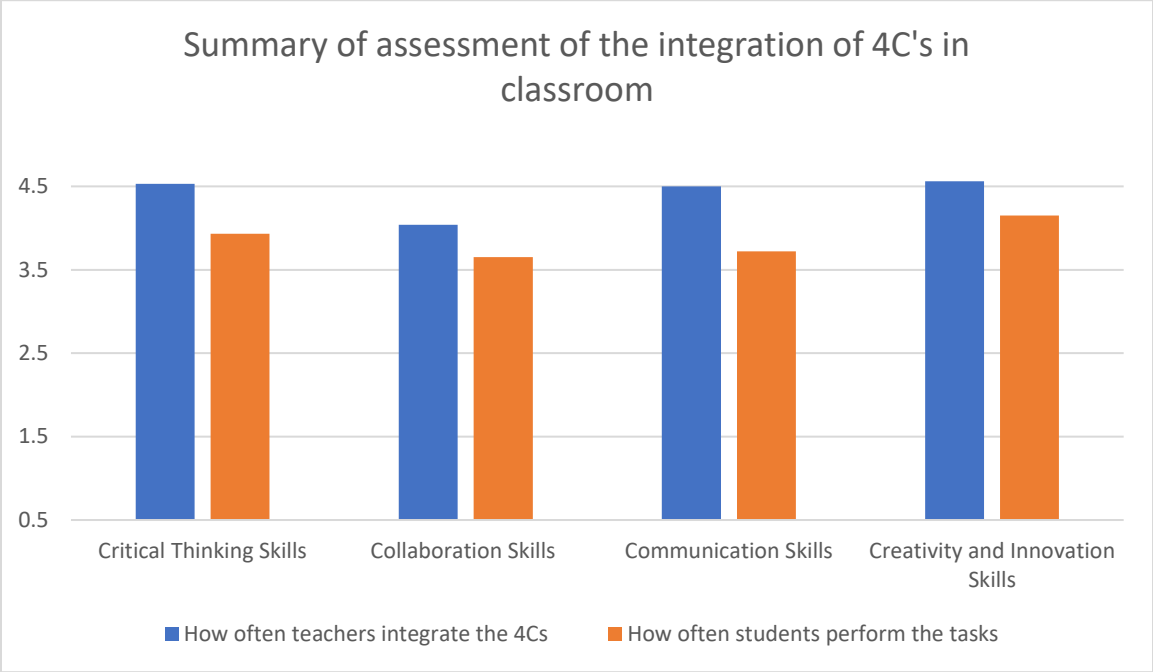
It can be seen from Table 4 that three (3) statements from the teachers gave a verbal interpretation *of "Always or All the Time"* while the others were *"Often or Most of the time"*. Meanwhile, in the students' assessment, all statements except one gave a verbal interpretation of *"Often"*. From the resulting average means, it can be concluded that the teachers **always** integrated tasks that dealt with communication skills in class, while students **often** accomplished these tasks, which meant that their assessment did not match that of the teachers'.

4.2.4 Creativity and Innovation Skills

Table 5**.** Mean score and descriptive interpretation on the assessment of the respondents on the 21st century skills integration in Purposive Communication in relation to Creativity and Innovation Skills

Statement	**Mean Score**	
	Teachers	**Students**
For the teachers: In the teaching of your Purposive Communication class, how often have you asked students to do the following: For the students: In class, how often do you do the following?		
Use idea creation techniques such as brainstorming or concept mapping?	4.51 Always	4.03 Often
Generate their own ideas about how to confront a problem or question?	4.67 Always	4.52 Always
Test out different ideas and work to improve them?	4.62 Always	4.15 Often
Invent a solution to a complex, open-ended or problem?	4.51 Always	4.05 Often
Create an original product or performance to express their ideas?	4.48 Always	4.02 Often
Average Mean	**4.56**	**4.15**

It can be concluded that the teachers **often** assigned their students tasks that dealt with creativity and innovation skills, while students also **often** performed these tasks but at a lower rating. Data indicated that the students **often** had their ideas to answer the problems and **often** created original products of their ideas by giving solutions using complex and open-ended research instruments.



4.3 Significant difference in the assessment of the 4Cs of 21st century skills integration in Purposive Communication when grouped according to the profile of the respondents

Table 6**.** Composite table of the significant difference between the students' and teachers' assessment of the 21st century skills integration in Purposive Communication

Integration in Purposive Communication	**t-value**	**p-value**	**Decision**	**VI**
Critical Thinking Skills	399.32	0.0321	**Reject H_0**	**Significant Difference**
Collaboration Skills	365.43	0.043	**Reject H_0**	**Significant Difference**
Communication Skills	412.35	0.002	**Reject H_0**	**Significant Difference**
Creativity & Innovation Skills	453.12	0.001	**Reject H_0**	**Significant Difference**

Table 6 presents the composite table of the significant difference in the assessment of the 21st century skills integration in Purposive Communication when grouped according to respondents' category profile using Independent T-test.

In every category, there was a significant difference in the assessment of the faculty members and the students having a cut-off alpha p-value of 0.05. Therefore, it rejected the null hypothesis of no difference. Data denoted that the 21st century skills integration of Critical Thinking, Collaboration, Communication and Creativity and Innovation Skills had significant differences.

Further, it was also indicated that even though the faculty **always** encouraged students regarding the importance of 21st century skills in their classes, not all students **always** complied with or executed these skills in class. Therefore, there was a gap between the teachers' integration of the 4Cs and the student's performance in these skills.

It must be understood that the 21st century, it is the age of technology, expects learners to possess the skills that befit digital people, like the 4Cs and competence in the use of technology (Van Laar et al., 2017) because ICT is a basic component of 21st century skills (Pearlman, 2010). In the same way, creativity and innovation skills refer to the ability to create something new from existing information and creative solutions for complex problems (Kaufman, 2013). It is said that among other skills, creativity is at the top of the list (Puccio, 2017) because it is integrated into other skills like problem-solving, forming new ideas or products, refining existing ideas and implementing innovations (Hora, 2017). Both skills which the respondents agreed on giving high ratings

are important for the learners to acquire and develop as they involve "searching, evaluating and organizing information (Catts and Lau, 2008).

In terms of collaboration and critical thinking skills, though there was a marked difference in the ratings of the respondents, it did not change the fact that both skills are as important as the first two cited. Critical thinking skills are important in all aspects of life (Wartono, 2018) in order to improve the quality of life of an individual. According to Novitsari (2015), critical thinking is shown through the way a person thinks and makes decisions in relation to what they have to believe and do. In the same way, collaboration is a composite of learning, interpersonal and work skills (ATC21S, 2014; Partnership for 21st Century Learning, 2019). According to Lai and Viering (2012), collaboration is directly associated with communication skills. It is manifested in situations when there is a set goal that needs to be attained and may only be done through the help of others (Greenstein, 2012).

4.4 Assessment of the factors that enhance the integration and implementation of the 21st century skills

Table 7. Mean score and descriptive interpretation on the assessment of the respondents regarding the factors that can enhance the integration and implementation of 21st century skills.

Statement	Mean Score	Descriptive Interpretation
What do you think should be done to effectively integrate and implement 21st century skills in your practices? Kindly check the box/es of the item/s that correspond to your choice.		
Share with students the learning targets or objectives before starting the lesson	4.65	Always
Introduce students to cognitively demanding tasks such as reasoning, problem-solving, constructing and evaluating evidence-based argument, project-based learning, among others	4.75	Always
Provide opportunities for students' choice and voice to increase their participation	4.67	Always
Use authentic materials and activities that connect students' learning to their lives	4.65	Always
Develop students' ownership by supporting them in learning to set, track and evaluate their learning goals	4.54	Always
Integrate educational technologies for a variety of purposes to support personalized learning.	4.96	Always
Make instructional goals and objectives clear to the students	4.67	Always
Motivate students to take the initiative by involving them in multiple opportunities	4.89	Always
Average Mean	***4.72***	***Always***

Shown in the table were the various factors that affected the integration and implementation of the 21st Century skills in Purposive Communication. The mean average score on the assessment of the respondents regarding the factors that can enhance the integration and implementation of 21st century skills was 4.72.

It is not surprising that educational technology was ranked as the highest since the 21st century is the era of technology. According to Bond et al. (2020), digital technology has become a fundamental concern in higher education which affects every aspect of the student's experience. In fact, technology makes teaching-learning engagement more intensive (Kerres, 2013; Rashid & Asghar, 2016). Further, students' learning engagement through their involvement in multiple tasks, as well as their chance to decide on the activities, was considered a vital factor in the integration and implementation of 21st century skills since it was proved to be associated with student achievement, persistence and retention (Kuh et al., 2016). Moreover, it helps learners to make use of their knowledge, skills and attitudes in the performance of a variety of tasks (Merrill, 2002). The more engaged the students in the multiple activities, the more they are able to channel their energy into their learning (Bond et al., 2020). Still, another factor is setting instructional goals or objectives and making them known to the students so the students have clear goals (Brookhart & Moss, 2014), enable them to learn better (Seidel et al. (2005) and direct their efforts toward them (Brookhart & Moss, 2012). According to Petrich & Schunk (2002), setting objectives or targets is the process of creating or putting in place directions to guide

learning. When students are informed of the activities and objectives of the lesson, they are "better able to monitor and adjust their work, select effective strategies and connect current work to prior learning (Brookhart & Long, 2011, p.67).

4.5 Assessment of the respondents regarding the importance of the integration and implementation of the 21st century skills in Purposive Communication

Table 8. Mean score and descriptive interpretation on the assessment of the respondents regarding the importance of the integration and implementation of the 21st century skills in Purposive Communication

Statement	Mean Score	Descriptive Interpretation
Among the statements below, which do you think is/are the reason/s why there is a need for 21st century skills to be integrated into the teaching of Purposive Communication?		
Help prepare students for their future careers	4.69	Always All the time
Equip students with attitudes, skills and knowledge to make them locally and globally competitive	4.85	Always All the time
Essential for lifelong learning	4.04	Often Most of the Time
Make students learn on their own	4.48	Often Most of the Time
Ensure that relevant learning experiences are designed and provided for the students	4.27	Often Most of the Time
Average Mean	**4.46**	**Often Most of the Time**

As shown in the table, the average mean score on the assessment of the respondents regarding the importance of the integration and implementation of the 21st century skills in Purposive Communication garnered a rating of 4.46. Data depicted that the respondents put a premium on preparing students for their future careers and equipping the learners for local and global competitiveness. Moreover, it is often considered that lifelong learning, learning on their own and ensuring important learning experiences are essential.

The crucial role that the integration of 21st century skills in Purposive Communication plays cannot be overstated, as they equip students with the necessary skills and attitudes essential in preparing them for their future careers. These "real-life" skills are important in helping learners integrate these knowledge, skills and attitudes (Merrill, 2002) and which employers demand and are needed in various businesses because sheer knowledge is not enough (Bialik et al., 2015). However, to get employed, applicants should have the necessary qualities to effectively perform their jobs. In other words, employability is based on competence (Romgens et al.,2019), as well as positive attitude and life skills, which are "essential for getting and keeping a job" (Careers NZ, 2017, par.1). Thus, it is important that higher learning institutions provide students with lifelong learning (Dunn, 2003). According to Do et al. (2021), lifelong learning (LLL) may help in the attainment of Sustainable Development Goals in 21st century education. On the other hand, Hojat et al. (2003) posited that lifelong learning includes attributes related to "self-initiated activities and information-seeking skills", which are ways of determining one's competence and professionalism (Frank et al., 2015).

Creativity and Innovation Skills as learning skills (Khoiri et al., 2019) are utilized in solving complex problems and creating new information and products (Tendrita et al., 2016). Whereas communication and collaboration skills, which go hand in hand, are used in working together to accomplish tasks and get the jobs done (Khoiri et al., 2021).

With reference to Communication Skills, it can be said that the limited time allotted for online classes affected the integration of these skills. This would create a negative impact on the student's competence, considering that the development of the students' communication skills does not only enhance their academic performance but even their competitiveness in the labor market (Asemanyi, 2015).

Student creativity is not based on school background, but creativity is built on the ability to produce new and appropriate ideas (Anwar et al., 2012; Diki, 2014; Tendrita et al., 2016) so that the goal of science education is achieved to adapt to different conditions, think flexibly, be creative, think critically, respect the community and be tolerant of ideas (Okwara & Upu, 2017). Furthermore,

creative thinking skills are an important part of learning skills (Khoiri et al., 2019; Türkmen, 2015) which are cognitive activities in finding solutions to solve problems (Malik et al., 2019), as well as finding ideas to solve these problems.

4.6 What learning module can be crafted in Purposive Communication to satisfy the principles of 21st century skill-based on the results of the study?

The use of learning materials in language classrooms is necessary because they supplement the teaching-learning process and help the teachers in meeting the educational and learning objectives intended for the courses and lessons. Based on the results of the study, there were skills highlighted and ways by which the existing module may be enhanced. Undoubtedly, all the 4Cs of the 21st century skills are equally important in preparing students for their future careers; however, communication and critical thinking skills, as well as the use of authentic materials and activities that connect students' learning to their lives, as well as provisions for relevant learning and experiences, were underscored.

Accordingly, the module titled "21st Century Skills-Integrated Module in Purposive Communication" had been crafted. The module was designed to highlight authentic materials and real-life tasks to make learning relevant and experiential. With these activities to supplement classroom instruction, students will be provided with opportunities to develop the life skills necessary to prepare them for their future careers and thrive in their workplaces.

5. Conclusion

In conclusion, this research on assessing the integration of 21st century skills in Purposive Communication provides valuable insights into the development of a skill-based module. The study aimed to evaluate the extent to which the 21st century skills are integrated into Purposive Communication, and its findings shed light on the current state of skill integration in this context.

Results of the study reveal that there is a moderate level of integration of 21st century skills in Purposive Communication in terms of collaboration, communication and critical thinking, which are considered essential skills in preparing individuals for their future careers and increasing their chances of being employed. Hence, these areas need further improvement and should be looked into in the preparation of course materials and objectives.

By assessing the integration of these skills, the research provides a foundation for the development of a skill-based module. This module could be designed to enhance the teaching and learning of Purposive Communication, focusing on the explicit instruction and practice of 21st century skills. Implementing such a module can foster the development of critical skills among learners in order to prepare them to navigate the challenges of the 21st century. The findings further highlight the importance of integrating real-world scenarios, project-based learning and technology-infused activities to promote the development and application of these skills.

Moreover, the research emphasizes the need for professional development for educators to effectively integrate 21st century skills in the teaching of Purposive Communication. Training programs can equip teachers with the necessary knowledge and strategies to facilitate skill development among students.

As the study is only limited to the assessment of the 21st century skills integration, future researchers may look into the students' skill development and its implication on their career readiness. Further, a study on the analysis of the existing curriculum frameworks and policy guidelines to assess the extent to which they promote the integration of 21st century skills may be conducted.

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