Self-Efficacy and Practices in Teaching 21st-Century Skills

Jeddah Bacus Quiño, Gerlinda Galua Corpuz

Abstract— This study investigated the teachers' self-efficacy and teaching practices in teaching 21st-century skills. The study sampled 205 senior high school teachers from private schools of District 1, Division of Cagayan de Oro City. Data were collected using a survey questionnaire and gathered data were statistically analyzed through mean, frequency, percentage, and correlation analysis. Findings of this study revealed that the respondents' highest educational qualification has a significant difference in teaching practices while age, sex, and teaching experience have no significant difference at all. Teachers have very high level of self-efficacy in teaching 21st-century skills especially in the collaboration skills and showed a significant effect in the teaching practices. Further, among the variables in teaching practice, communicating high expectations have been strongly practiced by the teachers as teaching practice meanwhile, teachers must work on student-teacher contact teaching practice. Based on the findings, it is highly recommended that teachers must highlight the student-teacher contact as teaching practice since it is a most important factor in student motivation and involvement. Teachers should, also, undergo appropriate and timely professional training development programs with the support of the school administrators so that they can utilize it for their betterment of their 21st-century teaching practices.

Index Terms— collaboration skills, communication skills, creativity skills, critical thinking skills, self-efficacy, teaching practices

1 Introduction

TEACHING practice and self-efficacy of teachers are among the takeoff variables often heard in the field of teaching. It continuously provokes stakeholders' and researchers' interest, as evident in various research findings available in the research arena. The same variables earned consideration in this study. It is used as the subject of inquiry in teaching 21st-century skills, believing that these variables are significant in teaching 21st-century skills successfully. Bilbao cited that 21st-century skills must be developed to address the global needs of the society, especially the needs and issues concerning the 21st-century curricular landscape in the classrooms [10]. Queensland Curriculum and Assessment Authority defined 21st-century skills as high-priority skills and attributes that are believed to be the most significant factor in helping students and learners live and work successfully in the 21st-century.

Teaching practice is essential in understanding and enhancing the educational processes because it shapes the learning environment and influences students' motivation and achievement. Over the years, the point of interest in 21st-century skills has shifted from why the teacher needs to teach the competencies to how they can do so [6], [55].

On the other hand, self-efficacy is defined by Hooper as an individual's belief in their ability to complete a task or achieve a goal, and has that individual's sense of self-efficacy can influence whether they succeed at a task [34]. She further explained and said, "Someone with high levels of self-efficacy for a given task will be resilient and persistent in the face of setbacks, while someone with low levels of self-efficacy for that task may disengage or avoid the situation."

Moreover, in the 21st-century classroom, teachers are facilitators of student learning and creators of productive classroom environments. Students can develop the skills they might need at present or in the future. The teacher's role is to provide students with a supportive, encouraging climate and practices that help them feel more comfortable, confident, and skillful [37]. Teachers are expected to demonstrate a high sense of self-efficacy, willingness to change and embrace new practices aligning with the goals of the 21st learning landscape. Further, teachers are expected to prepare the students for success in school; hence, opportunities in analyzing the 21st-century competencies are relevant considering that its level may vary among individuals.

To cope with the changing times, one of the significant reforms in our country's educational system is the implementation of the Philippine Republic Act No. 10533, otherwise referred to as the Enhanced Basic Education Act of 2013 or the K-12 Basic Education Program. This law was initiated and mandated through the Aquino Administration to all public and private elementary and secondary schools in the Philippines. The enhanced basic education program states that students must complete Kindergarten, Grades 1 to 6 or elementary school, Grades 7 to 10 or junior high school, and Grades 11 to 12 or senior high school. All of this must be completed in 13 years before a student can receive his high school diploma. As emphasized in the K-12 Basic Education Program, the new teaching paradigm of the Department of Education, on international, countrywide, and nearby competitiveness has evolved a framework that targets the holistic development of the students and opens the way to the mandated 21st-century skills. The authorities were optimistic that the extra years would equip students with the skills and knowledge they

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want for the next significant step in their lives: in college, future employment, entrepreneurship, or further technical and vocational training. The researchers believe that it is vital for the Philippines to preserve up with international standards – as the PH became the only country that accompanied a ten-year pre-university set-up earlier than the implementation of K-12.

As one of the teachers of the current program, the researchers are so much interested in learning how teachers carried out the expected role from them. Thus, this study aimed to investigate the self-efficacy and teaching practices of the teachers teaching 21st-century skills in private senior high school of District 1, Division of Cagayan de Oro City during the school Year 2019-2020.

1.1 Statement of the problem

This study aimed to investigate the self-efficacy and teaching practices of the teachers teaching 21st-century skills in private senior high school of District 1, Division of Cagayan de Oro City during the school Year 2019-2020. It sought to answer the following inquiries:

1. What is the profile of the respondents in terms of:
   1.1. Sex,
   1.2. Age,
   1.3. Teaching Experience,
   1.4. Highest Educational Qualification, and
   1.5. Related Training and Seminars Attended?
2. What is the respondents' level of self-efficacy in teaching the 21st-century skills on:
   2.1. Communication;
   2.2. Critical Thinking;
   2.3. Collaboration; and
   2.4. Creativity?
3. What is the teaching practice of the respondents in teaching the 21st-century skills based on:
   3.1. Student-Teacher Contact;
   3.2. Reciprocity And Cooperation Among Students,
   3.3. Active Learning Practice,
   3.4. Prompt Feedbacking,
   3.5. Emphasizing Time On Task,
   3.6. Communicating High Expectations, And
   3.7. Respecting Students' Diversity and Ways of Learning?
4. Is there a significant effect on the respondents' teaching practices when self-efficacy is considered?
5. Is there a significant difference in the respondents teaching practices when grouped according to:
   5.1. Sex,
   5.2. Age,
   5.3. Teaching Experience, and
   5.4. Highest Educational Qualification?

1.2 Hypothesis

Problems 1, 2, and 3 are hypotheses-free. For problems 4 and 5 the null hypotheses were tested at 0.05 level of significance.

H_{01}: There is no significant effect on the respondents teaching practices when self-efficacy is considered.

H_{02}: There is no significant difference in the respondents teaching practices when grouped according to:

2.1 Sex,
2.2 Age,
2.3 Teaching Experience, and
2.4 Highest Educational Qualification?

2 METHODOLOGY

2.1 Research Design

This study employed the descriptive survey method of research. A descriptive survey attempts to establish the range and distribution of some social characteristics, such as education or training, occupation, and location, and discover how these characteristics may be related to specific behavior patterns or attitudes. This type of research was used to observe the occurrences through frequency counting, averaging, and other statistical calculations [61].

This design was expected to provide a systematic description of the situation factually and accurately. Descriptive research allows for the research to be conducted in the respondent's natural environment, which ensures that high-quality and honest data is collected [2]. This can be used for future research or even developing a hypothesis of the research object.

This study did require gathering and computing data and involved the analysis and interpretation of results that drawn the implication of the findings. Variables such as self-efficacy level of the respondents in teaching 21st-century skills such as communication, collaboration, critical thinking, and creativity, and teaching practices like student-teacher contact, reciprocity, and cooperation among students, active learning practice, prompt feedbacking, emphasizing time on task, communicating high expectations, and respecting students' diversity and ways of learning were tested. It concerned the description of current conditions without being influenced by the investigator.

2.2 Research Setting

This study was conducted at the private secondary schools that offer senior high school programs in District 1 of Cagayan de Oro City Division, Philippines. District 1 consisted of 24 barangays such as Baikingon, Balulang, Bayabas, Bayanga, Besigan, Bonbon, Bulua, Canitoan, Carmen, Dansolihon, Iponan, Kauswagan, Lumbia, Mambuaya, Pagalungan, Pagatpat, Patag, Pigsag-an, San Simon, Taglimao, Tagpangi, Tignapoloan, Tuburan, Tumpagon.

2.3 Respondents and Sampling Procedure

This study opted to use the total population/universal sampling technique. It is a purposive sampling technique that involves examining the entire population with a particular set of characteristics. The researchers chose to study the entire population because the size of the population with a particular set of characteristics was typically minimal, and the probability of being selected was unknown.

The respondents of this study were the senior high school

teachers teaching in private senior high schools of District 1, Division of Cagayan de Oro City.

2.4 Research Instrument

The primary tool in gathering the data was a survey questionnaire. The research instrument used to gather the necessary data for self-efficacy was adapted and patterned from the related study of Al-azmi on teachers' self-efficacy of teaching innovation skills survey. On the teaching practices, the questionnaire was also adapted and patterned from the related study of Fletcher & Djajalaksana on the inventories of good practice in undergraduate education [5], [33].

The reliability of the research questionnaire based on Cronbach's alpha is 0.965, which indicates a high level of internal consistency. A reliability coefficient of 0.70 or higher is considered "acceptable" in most social science research situations; 97% of the variance in that score would be considered true score variance or reliable or internally consistent reliable [67].

The questionnaire has three parts. The first part inquired on the respondents' characteristics such as age, sex, teaching experience, highest educational qualification, and related training and seminars. The second part was the respondents' self-efficacy in teaching 21st-century skills in communication, collaboration, creativity, and critical thinking. The third part surveyed the respondents' teaching practices in teaching 21st-century skills in the classroom, which consisted of student-teacher contact, reciprocity, and cooperation among students, active learning practice, prompt feedbacking, emphasizing time on task, communicating high expectations, respecting students' diversity and ways of learning.

3 Presentation, Analysis and Interpretation of Data

1. *What is the profile of the respondents in terms of:*
   - *1.1. Sex,*
   - *1.2. Age,*
   - *1.3. Teaching Experience,*
   - *1.4. Highest Educational Qualification, and*
   - *1.5. Related Training and Seminars Attended?*

In terms of **sex**, results show that there are 135 (65.9%) respondents who are females, and there are 70 (34.1%) respondents who are males. This means that female teachers dominate over male teachers teaching in the private senior high schools of District 1, Division of Cagayan de Oro City during the school year 2019-2020. The result conforms to the survey findings conducted by the Philippine National Center for Education Statistics [57], which shows that in the school year 2018-2019, 77% of school teachers in the Philippines were females and 23% were males. This could be attributed to some factors like teaching is more attractive and excellently carried by most females than males. Lei et al. [43] considered that females have a greater emotional connection to students, making them excellent in passing off information and abilities to students. Nevertheless, regardless of their sex, teachers are viewed as second-parents as they take care of students in school for their educational needs [6].

TABLE 1
DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR CHARACTERISTICS

Characteristics	Frequency	Percentage
Sex		
Male	70	34.1
Female	135	65.9
Total	205	100
Age		
50 to 59 years old	4	2
40 to 49 years old	7	3.4
30 to 39 years old	26	12.7
20 to 29 years old	168	82
Total	205	100
Teaching Experience		
21 years and above	7	3.4
11 to 15 years	6	2.9
6 to 10 years	21	10.2
5 years and below	171	83.4
Total	205	100
Highest Educational Qualifications		
Doctoral Degree	0	0
With Master's Degree and Units in Doctoral	4	2
With Master's Degree	4	2
With Bachelor's Degree and Units in Master's	46	22.4
With Bachelor's Degree	151	73.7
Total	205	100

In terms of **age**, 168 (82%) of the respondents whose ages ranged from 20 to 29, while 4 (2%) respondents whose ages ranged from 50 to 59. This means that there are more young adult teachers than middle-aged teachers teaching in the private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. This could be true because of the mandate of the Philippine Educational System. It is stipulated in DepEd Order No. 3, s. 2016, Hiring Guidelines for Senior High School Teaching Positions, that one of the qualifications to teach senior high school is at least a four-year graduate of any education course, and since it is a requirement in DepEd Order No. 47, s. 2016, Omnibus Policy on Kindergarten, that children must reach five years of age before acceptance to the kinder level; therefore, a teacher can already have his license to teach by the age of 20 to 22. The same pattern can be traced wherein both Malta and Turkey have younger teachers than 40 years of age and above [11].

In terms of **teaching experience**, 171 (83.4%) of the respondents who have a teaching experience of 5 years and below, while there are 6 (2.9%) respondents who have teaching experience of 11 to 15 years. This means that most of the respondents teaching in the private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020 have five years of teaching experience and below. This finding could warrant considerations in terms of the operations of the

K-12 program in the Philippines. Rhoads [53] stressed that because of the implementation of the K-12 program four years ago, a mass hiring of teachers in both public and private schools was accomplished to meet personnel requirements; as a result, years of teaching experiences are lesser.

In terms of **educational qualification**, 151 (73.7%) of the respondents earned Bachelor's Degree while none hold a Doctorate Degree. This means that most of the respondents teaching in private senior high school of District 1, Division of Cagayan de Oro City during the school year 2019-2020 have only completed bachelor's degree. This result agrees with the study of Lopez et. al [46], where it was found out that teachers in the Philippine Academic Institutions lack advanced degrees. He also added that less than half of the school educations have degrees other than bachelor's degrees, and there were only 10% maintained doctorate degrees. Furthermore, the results might be supported by DepEd Order No. 3, s. 2016 (Hiring Guidelines for Senior High School Teaching Positions) which it was specified that a teacher who is qualified to teach in senior high school have either a bachelor's diploma in education; an equivalent diploma; or a bachelor's degree in arts or sciences with at least 18 teaching units. Hence, this might explain why most of the respondents hold a Bachelor's Degree only.

Meanwhile, results reveal on training and seminars that only 8 (3.9%) respondents had attended international training and seminars at least 1 to 2 times, while there are 197 (96.1%) respondents who had not attended any related training and seminars all.

At a national level, there are 5 (2.4%) respondents who had attended training and seminars at least 3 to 4 times, while there are 169 (82.4%) respondents who had not attended at all.

At a regional level, there are 3 (1.5%) respondents who had attended training and seminars at least five times and above, while there are 156 (75.6%) respondents who had not attended at all.

At the division level, there are 6 (2.9%) respondents who have attended training and seminars at least five times and above, 6 (2.9%) for at least 3 to 4 times, while 156 (76.1%) had not attended at all.

There are 4 (2%) respondents at the district level who have attended training and seminars at least five times and above, while 135 (65.9%) had not attended.

Lastly, at the school-based level, there are 36 (17.6%) respondents who have attended training and seminars at least five times and above, 34 (16.6%) for at least 3 to 4 times, 88 (42.9%) for at least 1 to 2 times, while there are 47 (22.9%) who had not attended at all.

With these large amounts of numbers, it can be implied that most of the respondents teaching in the private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020 had not attended any related training and seminars in most levels such as international level, National, Regional, Division, and District Level. In contrast, few of the respondents can be noted who attended the school-Based Level. It has been observed that training and seminars are part of every institution's professional growth and development program. R.A. No. 10912, otherwise known as the "Continuing Professional Development (CPD) Act of 2016," was enacted to promote and upgrade the practice of the professions in the country and institute measures that will continuously enhance the competence of the teachers with the aid of the global standards of practice, thereby, ensuring their contribution in uplifting the accepted welfare, monetary growth, and development of the nation. However, some factors might hinder its implementation; for example, monetary constraints could be a reason. It is good to note that seminars of most public-school teachers are free. Most are paid by the teachers in private school teachers significantly if it exceeds what is spelled out in the annual budget plan. It could also be that teachers have other priorities.

Gonong's study found out that teachers were challenged in getting into seminars because they were anticipated to be at school to teach and guide students [36]. Taking units for M.A. or attending the training suggested that students will be left

TABLE 2
DISTRIBUTION OF RESPONDENTS' ATTENDANCE ON RELATED TRAININGS AND SEMINARS

Trainings And Seminars Attended	Frequency	Percentage
International Level		
5 times and above	0	0
3 to 4 times in a year	0	0

unattended. It could be a challenging time for them to attend training and seminars due to financial problems. The World Bank Organization in 2014 once stated that support systems for teachers at the school level relevant to the identification of professional development needs are not working well, and utilization of budget allocated for human resource training and development is often low. Hence, the factors mentioned above might explain why most of the respondents do not participate in training and seminars. It is important to note that teachers' essentials need professional training and seminars because it enhances teachers' teaching practices [36]. In addition, attending training and seminars will help the teachers improve in teaching-learning situations, be updated on current teaching units, and be encouraged to better teachers in the present-day world [31].

2. *What is the respondents' level of self-efficacy in teaching the 21st-century skills on:*
   2.1. Communication;
   2.2. Critical Thinking;
   2.3. Collaboration; and
   2.4. Creativity?

TABLE 4.
DISTRIBUTION OF RESPONDENTS' SELF-EFFICACY IN TEACHING CRITICAL THINKING SKILL

Indicators	Mean	SD	Interpretation
help students to analyze, evaluate evidence or alternate points of view, arguments, claims and beliefs	3.49	0.55	Very High
foster students' thinking to compare and contrast between two things	3.59	0.53	Very High
create solving problems projects (for example: I can group students and give each group problem to analyze this problem by identifying reasons, results, and then create solutions to solve it)	3.52	0.59	Very High
create activities that need synthesis and make connections between information and arguments	3.43	0.58	Very High
Total	3.51	0.44	Very High

Legend: 3.26 – 4.00 – Very High 2.51 – 3.25 – High 1.76 – 2.50 – Low 1.00 – 1.75 – Very Low

Table 4 shows that the respondents reported having a very high level of self-efficacy in teaching critical thinking skills, as indicated in the overall mean of 3.51 (SD=0.44).

The indicator "foster students' thinking to compare and contrast between two things," described as very high, acquires the highest mean of 3.59 (SD=0.53). It implies that teachers have a strong belief in cultivating students' critical thinking skills by allowing them to compare and contrast between two things.

In Bloom's Taxonomy, "compare and contrast" belongs to analyzing level in which students can draw connections between ideas, differentiate contrasting opinions or viewpoints, examine new evidence, and conduct experiments [53]. In that way, students determine the validity of an idea or hypothesis of the concept given to them by the teacher.

Whereas the indicator "create activities that need synthesis and make connections between information and arguments," described as very high, gets the lowest mean of 3.43 (SD=0.58). This implies that even though teachers have a very high belief in creating activities for the students to synthesize and make connections between information and arguments, still, there is a need for teachers to come up with activities that will stimulate the students to be inquisitive and disagree with what they are told.

TABLE 5.
DISTRIBUTION OF RESPONDENTS' SELF-EFFICACY IN TEACHING COLLABORATION SKILLS

Indicators	Mean	SD	Interpretation
encourage students to share their thoughts with peers	3.67	0.51	Very High
encourage students to write conclusion after discussion with other students and listen to different thoughts	3.46	0.58	Very High
encourage students to work in pairs or groups	3.70	0.51	Very High
use cooperative learning (it is teaching strategy encourages students to work in groups with using variety of activities to promote their understanding of a subject) in my classroom	3.66	0.57	Very High

Table 5 reveals that the respondents reported having a very high level of self-efficacy in teaching collaboration skills, as indicated in the overall mean of 3.62 (SD=0.44). The indicator "encourage students to work in pairs or groups," described as very high, acquires the highest mean of 3.70 (SD=0.51). It implies that teachers have a very high sense of self-efficacy, using collaborative learning by encouraging students to work in pairs or groups. Students are engaged in cooperative teams, there is a greater chance that the information retains longer than students who work quietly as individuals [51]. Whereas the indicator "encourage students to write a conclusion after discussion with other students and listen to different thoughts," described as very high, gets the lowest mean of 3.46 (SD=0.58). This implies that even though teachers view themselves as effective in encouraging students to write a conclusion after discussion with other students, they may still strengthen more activities for students to understand concepts through collaborative writing.

TABLE 6.
DISTRIBUTION OF RESPONDENTS' SELF-EFFICACY IN CREATIVITY SKILLS

Indicators	Mean	SD	Interpretation
ask students open-ended questions (questions that need more than one-word answers like suggestions or opinions)	3.55	0.54	Very High
encourage students to generate creative ideas and solutions to solve specific problems	3.48	0.58	Very High
create students group projects depending on multiple abilities or interests	3.44	0.59	Very High
create activities in order to meet students' interests and needs	3.57	0.58	Very High
Total	3.51	0.48	Very High

Legend: 3.26 – 4.00 – Very High 2.51 – 3.25 – High 1.76 – 2.50 – Low 1.00 – 1.75 – Very Low

Table 6 shows that the respondents reported having a very high level of self-efficacy in teaching creativity skills, as indicated in the overall mean of 3.51 (SD=0.48). The indicator "create activities to meet students' interests and needs," described as very high, has the highest mean of 3.57 (SD=0.58). It means that teachers have high beliefs in meeting students' interests and needs by creating creative activities and strategies in their classroom. It was asserted by Darling-Hammond et al. [8] that students learn best when they are positioned in a learning environment that is sensitive to their learning needs.

Whereas the indicator "create students group projects depending on multiple abilities or interests," described as very high, gets the lowest mean of 3.44 (SD=0.59). Even though teachers have high beliefs in creating students' group projects depending on multiple abilities or interests, there is still a need to understand the importance of multiple intelligences in grouping the students during group projects. It is important to note that multiple intelligences approach activities were more effective in the positive development of the students' attitudes [12].

TABLE 7.
SUMMARY ON RESPONDENTS' SELF-EFFICACY IN TEACHING 21ST-CENTURY SKILLS

Self-Efficacy in Teaching 21st-Century Skills	Mean	SD	Interpretation
Communication Skills	3.55	0.41	Very High
Critical Thinking Skill	3.51	0.44	Very High
Collaboration Skills	3.62	0.44	Very High
Creativity Skills	3.51	0.48	Very High

Table 7 shows the summary of the respondents' self-efficacy in teaching 21st-century skills. The table reveals that collaboration skills have the highest mean of 3.62 (SD=0.44), while critical thinking skills get the lowest mean of 3.51 (SD=0.44). Data implies that teachers have shown a very high level of self-efficacy in teaching collaboration skills by encouraging students to work with other students to create or produce something.

Whereas, even though teachers have a very high level of self-efficacy in teaching critical thinking skills, still, there is a need to pay attention to the activities that may improve students' critical thinking skills. Teachers may encourage their students to practice solving problems and empower them to discover the truth in assertions, especially when separating fact from opinion.

3. *What is the teaching practice of the respondents in teaching the 21st-century skills based on:*
   - *3.1. Student-Teacher Contact;*
   - *3.2. Reciprocity And Cooperation Among Students,*
   - *3.3. Active Learning Practice,*
   - *3.4. Prompt Feedbacking,*
   - *3.5. Emphasizing Time on Task,*
   - *3.6. Communicating High Expectations, And*
   - *3.7. Respecting Students' Diversity and Ways of Learning?*

TABLE 8.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF STUDENT-TEACHER CONTACT

Indicators	Mean	SD	Interpretation
advises students about career opportunities in their major field	3.29	0.73	Strongly Practiced
encourages students to drop by the office to visit	2.94	0.89	Practiced
shares past experiences, attitudes, and values with students	3.33	0.78	Strongly Practiced
knows students by name by the end of the first two weeks of the term	2.86	0.83	Practiced
makes special effort to be available to students of a culture or race different from own	3.33	0.64	Strongly Practiced
serves as mentor or informal advisor to students	3.51	0.59	Strongly Practiced
takes students to professional meetings or other events in the field	2.60	0.97	Practiced
helps provide resolution whenever there is a conflict on campus involving students	3.10	0.84	Practiced
Total	3.12	0.49	Practiced

Legend: 3.26 – 4.00 –Strongly Practiced 2.51 – 3.25 – Practiced
1.76 – 2.50 –Not Practiced 1.00 – 1.75 –Strongly Not Practiced

Table 8 shows the result of respondents' teaching practices regarding student-teacher contact with the overall mean of 3.12 (SD=0.49) and is described as being practiced. The indicator "serves as a mentor or informal advisor to students" has the highest mean of 3.51 (SD=0.59) and is described as strongly practiced.

This means that among the variables in terms of student-teacher contact, serving as a mentor or informal advisor to students has been strongly practiced by the teachers as teaching practice in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. It can be noted from the study of Gallagher in the Interdisciplinary Journal of Problem-based Learning that there is a positive relationship between the student and the teacher both academically and socially [35]. This proves that if teachers inspire students to contact them in and out of the classroom, it makes teachers more effective and successful in motivating and creating students' inquisitiveness [29].

On the other hand, the indicator "takes students to professional meetings or other events in the field" gets the lowest mean of 2.60 (SD=0.97) and is described as practiced. This means that teachers may consider the need to expose the students early on to the breadth of career paths through professional meetings to identify the skills required for their chosen career [33].

TABLE 9.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF RECIPROCITY AND COOPERATION AMONG STUDENTS

Indicators	Mean	SD	Interpretation
asks students to tell each other about their interests and backgrounds	3.37	0.69	Strongly Practiced
encourages students to do projects together	3.43	0.67	Strongly Practiced
asks students to explain difficult ideas to each other	3.27	0.73	Strongly Practiced
encourages students to praise each other for their accomplishments	3.28	0.67	Strongly Practiced
asks students to discuss key concepts with others students whose backgrounds and viewpoints are different from their own	3.45	0.65	Strongly Practiced
creates learning communities, study groups, or project teams within my courses	3.24	0.73	Practiced
takes students to professional meetings or other events in the field	3.13	0.80	Practiced
encourages students to join at least one campus organization	3.29	0.84	Strongly Practiced
Total	3.31	0.49	Strongly Practiced

Legend: 3.26 – 4.00 –Strongly Practiced 2.51 – 3.25 – Practiced
1.76 – 2.50 –Not Practiced 1.00 – 1.75 –Strongly Not Practiced

Table 9 shows the result on respondents' teaching practices in terms of reciprocity and cooperation among students with the overall mean of 3.31 (SD=0.49) and is described as practiced.

The indicator "asks students to discuss key concepts with other students whose backgrounds and viewpoints are different from their own" acquires the highest mean of 3.45 (SD=0.65) and is described as strongly practiced. This means that among the variables in terms of reciprocity and cooperation among students, asking students to discuss key concepts with other students whose backgrounds and viewpoints are different from their own has been strongly practiced by the teachers as teaching practice in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. Learning is more effective when it is social because, in that way, it would lead to a deeper degree of understanding for all of the students [32].

Further, the indicator "takes students to professional meetings or other events in the field" gets the lowest mean of 2.60 (SD=0.97) and is described as practiced. This means that there is a need for the teachers to reflect on taking the students to the professional meeting by letting them join learning communities because, according to MacCann et al. [48], student learning communities create connections for isolated students, meet other students, foster camaraderie, and begin to bring community to other community.

TABLE 10.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF ACTIVE LEARNING PRACTICE

Indicators	Mean	SD	Interpretation
asks students to present their work to the class	3.58	0.54	Strongly Practiced
asks students to summarize similarities and differences among different theorists, research findings, or artistic works	3.17	0.72	Practiced
asks students to relate outside events or activities to the	3.42	0.69	Strongly Practiced

Table 10 shows the result on respondents' teaching practices in terms of active learning practice with the overall mean of 3.22 (SD=0.49) and described as practiced. The indicator "gives students concrete, real-life situations to analyze" acquires the highest mean of 3.60 (SD=0.57) and is described as strongly practiced. This means that among the variables in terms of active learning practice, giving students concrete, real-life situations to analyze has been strongly practiced by the teachers as teaching practice in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. Students doing active learning are consciously engaged, and when they are introduced to real-world problems, they become engaged with real life [50]. Furthermore, the indicator "arranges field trips, volunteer activities, or internships related to the lesson with the students" gets the lowest mean of 2.35 (SD=1.06) and is described as not practiced. This means that teachers no longer arrange field trips, volunteer activities, or internships related to the lesson with the students. There may be some factors that might hinder its implementation. According to Fletcher et. al, one reason is that financial pressures force schools to make difficult decisions about how to allocate scarce resources, and field trips are increasingly seen as an unnecessary frill [53]. He added that another factor could be is that some schools might have believed that student time would be better spent in the classroom preparing for the exams.

TABLE 11.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF PROMPT FEEDBACK

Indicators	Mean	SD	Interpretation
prepares classroom exercises and problems which gives students immediate feedback on how well they do	3.31	0.63	Strongly Practiced
returns examinations and papers within a week	3.11	0.84	Practiced
gives students detailed evaluations of their work early in the term	3.20	0.69	Practiced
asks students to schedule conferences to discuss their progress	3.02	0.81	Practiced
gives students written comments on their strengths and weaknesses of their exams and papers	3.04	0.82	Practiced
asks students to keep logs or records of their progress	3.01	0.87	Practiced
discusses the results of the final examination with students at the end of the semester	3.14	0.84	Practiced
calls or writes a note to students who miss class	3.11	0.81	Practiced
Total	3.12	0.57	Practiced

Legend: 3.26 – 4.00 –Strongly Practiced 2.51 – 3.25 – Practiced
1.76 – 2.50 –Not Practiced 1.00 – 1.75 –Strongly Not Practiced

Table 11 shows the result on respondents' teaching practices in terms of prompt feedback with the overall mean of 3.12 (SD=0.57) and described as practiced. The indicator "prepares classroom exercises and problems which gives students immediate feedback on how well they do" gets the highest mean of 3.31 (SD=0.63) and is described as strongly practiced. This implies that among the variables, in terms of prompt feedback, preparing classroom exercises and problems which gives students immediate feedback on how well they do have been strongly practiced by the teachers as teaching practice in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. Teachers may note that giving prompt feedback may positively impact student achievement, as emphasized in the Teaching and Learning International Survey [65].

On the other hand, the indicator "asks students to keep logs or records of their progress" gets the lowest mean of 3.01 (SD=0.87) and is described as practiced. This means that even though teachers are practicing in asking students to keep logs or records of their progress, still, there is a need for them to think of ways as to how the students can keep records of their progress.

TABLE 12.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF EMPHASIZING TIME ON TASK

Indicators	Mean	SD	Interpretation
expects students to complete assignments promptly	3.46	0.66	Strongly Practiced
communicates to students the minimum amount of time they should spend preparing for classes	3.31	0.66	Strongly Practiced
makes clear to students the amount of time required to understand complex material	3.36	0.66	Strongly Practiced
encourages students to rehearse in advance when oral reports or class presentations are called for	3.44	0.66	Strongly Practiced
underscores the importance of regular work, steady application, sound self-pacing and scheduling to students	3.29	0.71	Strongly Practiced
explains to students the consequences of non-attendance	3.66	0.54	Strongly Practiced
meets with students who fall behind to discuss their study habits, schedules, and other commitments	3.33	0.69	Strongly Practiced
requires students to make up lost work if they miss classes	3.44	0.62	Strongly Practiced
Total	3.41	0.46	Strongly Practiced

Legend: 3.26 – 4.00 –Strongly Practiced 2.51 – 3.25 – Practiced
1.76 – 2.50 –Not Practiced 1.00 – 1.75 –Strongly Not Practiced

Table 12 shows the respondents' teaching practices in emphasizing time on task with the overall mean of 3.41 (SD=0.46) and described as strongly practiced.

The indicator "explains to students the consequences of non-attendance" acquires the highest mean of 3.66 (SD=0.54) and is described as strongly practiced. This infers that among the variables, in terms of emphasizing time on task, explaining to students the consequences of non-attendance have been strongly practiced by the teacher as it is a teaching exercise in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020.

School heads and faculty might also be affected by the absenteeism rate of their students, and so as the population of those who practice absenteeism affect the entire school environment itself [38].

On the other hand, the indicator "underscores the importance of regular work, steady application, sound self-pacing, and scheduling to students" gets the lowest mean of 3.29 (SD=0.71) and is described as strongly practiced.

This implies a need to emphasize the importance of regular work, steady application, sound self-pacing, and scheduling to students so that they can manage their time efficiently.

TABLE 13.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF COMMUNICATING HIGH EXPECTATIONS

Indicators	Mean	SD	Interpretation
helps students set challenging goals for their own learning	3.42	0.63	Strongly Practiced
tells students that I expect them to work hard in my classes	3.60	0.58	Strongly Practiced
emphasizes the importance of holding standards for academic achievement	3.50	0.59	Strongly Practiced

Table 13 shows the result on respondents' teaching practices in terms of communicating high expectations with the overall mean of 3.46 (SD=0.43) and described as strongly practiced. The indicator "explains to students what will happen if they do not complete their work on time" acquires the highest mean of 3.60 (SD=0.56) and is described as strongly practiced. This infers that among the variables in terms of communicating high expectations, explaining to students what will happen if they do not complete their work on time has been strongly practiced by the teachers as teaching practice in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. Students need to experience high expectations, through internal motivation or external encouragement, to be successful learners [54]. Hence, when the teacher's expectations are low, students are less possibly encouraged to learn. Moreover, the indicator "suggests extra reading or writing tasks" gets the lowest mean of 3.26 (SD=0.77) and is described as strongly implemented. This implies that there is a need to further foster extra reading and writing through reading, essays, and discussions between students and teachers, as well as peer-to-peer discussions since reading and writing have been effectively used to improve the students' writing capability [53], [66].

TABLE 14.
DISTRIBUTION OF RESPONDENTS' TEACHING PRACTICES IN TERMS OF RESPECTING STUDENTS' DIVERSITY AND WAYS OF LEARNING

Indicators	Mean	SD	Interpretation
encourages students to speak up when they don't understand	3.68	0.51	Strongly Practiced
discourages unpleasant remarks, sarcasm, kidding and other class behaviors which may embarrass students	3.56	0.64	Strongly Practiced
uses diverse teaching activities to address a broad spectrum of students	3.46	0.57	Strongly Practiced
selects readings and design activities related to the background of my students	3.32	0.69	Strongly Practiced
provides extra material or exercises for students who lack essential background knowledge or skills	3.35	0.70	Strongly Practiced
integrates new knowledge about women and other underrepresented populations into the courses	3.21	0.76	Practiced
develops mastery learning, learning controls, or computer assisted learning alternatives for the class	3.40	0.65	Strongly Practiced
tries to find out about students' learning styles, interests, or backgrounds at the beginning of each course	3.54	0.56	Strongly Practiced
Total	3.44	0.46	Strongly Practiced

Legend: 3.26 – 4.00 –Strongly Practiced 2.51 – 3.25 – Practiced
1.76 – 2.50 –Not Practiced 1.00 – 1.75 –Strongly Not Practiced

Table 14 shows the result on respondents' teaching practices regarding respecting students' diversity and ways of learning with the overall mean of 3.44 (SD=0.46) and described as strongly practiced. The indicator "encourages students to speak up when they do not understand" acquires the highest mean of 3.68 (SD=0.51) and is described as strongly practiced. This means that among the variables in terms of respecting students' diversity and ways of learning, encouraging students to speak up when they do not understand has been strongly practiced by the teachers as teaching practice in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. The result conforms to the study of Czekanski and Wolf that participation is an essential aspect of student learning [25]. When students speak up in class, they learn to express their ideas so that others can understand. When they ask questions, they learn how to obtain information to enhance their understanding of a topic. By this, teachers might create a positive social and emotional classroom climate. The teacher overtly demonstrates caring for students as people and respect for their ideas during issue-based discussions. On the other hand, the indicator "integrates new knowledge about women and other underrepresented populations into the courses" gets the lowest mean of 3.21 (SD=0.76) and is described as practiced. Even though this indicator may have been practiced, still, there is a need for the teachers to integrate knowledge about genders and ensure that all students, regardless of culture, socioeconomic level, family structure, or disability, have a safe, supportive learning environment that challenges their thought processes and respects unique differences [40].

TABLE 15.
SUMMARY TABLE OF THE RESPONDENTS' TEACHING PRACTICES IN TEACHING 21ST-CENTURY SKILLS

Teaching Practices	Mean	SD	Interpretation
Student-Teacher Contact	3.12	0.49	Practiced
Reciprocity and Cooperation Among Students	3.31	0.49	Strongly Practiced
Active Learning Practice	3.22	0.49	Practiced
Prompt Feedback	3.12	0.57	Practiced
Emphasizing Time on Task	3.41	0.46	Strongly Practiced
Communicating High Expectations	3.46	0.43	Strongly Practiced
Respecting Students' Diversity and Ways of Learning	3.44	0.46	Strongly Practiced
Total	3.29	0.48	Strongly Practiced

Legend: 3.26 – 4.00 –Strongly Practiced 2.51 – 3.25 – Practiced
1.76 – 2.50 –Not Practiced 1.00 – 1.75 –Strongly Not Practiced

Table 15 shows the summary of the respondents' teaching practices in teaching 21st-century skills. Communicating high expectations acquires the highest mean of 3.46 (SD=0.43) and is described as strongly practiced. On the other hand, student-teacher contact gets the lowest mean of 3.12 (SD=0.49) and is described as being practiced. It implies that among the seven (7) teaching practices, communicating high expectations has been strongly practiced by the teachers in private senior high school of District 1, Division of Cagayan de Oro City school year 2019-2020. Further, it also implies that the teachers least practice student-teacher contact as teaching practice in teaching 21st-century skills.

4. *Is there a significant effect on the respondents' teaching practices when self-efficacy is considered?*

TABLE 16.
CORRELATION OF SELF-EFFICACY AND TEACHING PRACTICES IN TEACHING 21ST-CENTURY SKILLS

Data	Correlation Coefficient (R)	Determination of Correlation (R2)	P-Value
Predictors/Constant Variable: Average Self-Efficacy	0.575	0.331	0.000
Dependent Variable: Average Teaching Practice			

Table 16 shows the value R2 of 0.331; this indicates that 33.1% of the variation in teaching practices can be explained by the data containing only the self-efficacy. Further, the p-value of 0.000 is less than the set alpha of 0.05, which gives a significant result, making the null hypothesis related to this problem rejected. This means that there is a significant effect in the respondents' teaching practices when self-efficacy is considered. The results conform to the study of Nolannand Molla [49], wherein teachers' self-efficacy is an essential variable in teacher practices that are consistently related to student outcomes. Moreover, the study of Wilborn found out that teachers displayed a very strong sense of self-efficacy towards effective teaching and managing their classrooms. Since teachers' self-efficacy is a relevant factor for the effectiveness of the teaching activity and is a powerful drive influencing the behavior of teachers in the classroom, it is essential to note that self-efficacy is necessary for supporting the principle of good teaching practice. Teachers who are confident about their skills maintain the academic persistence necessary for high levels of student academic achievement [70], [16], [28].

5. *Is there a significant difference in the respondents teaching practices when grouped according to:*
   5.1. Sex,
   5.2. Age,
   5.3. Teaching Experience, and
   5.4. Highest Educational Qualification?

TABLE 17.
COMPARISON OF THE RESPONDENTS' TEACHING PRACTICES WHEN GROUPED ACCORDING TO THEIR CHARACTERISTICS

Characteristics	Mean	SD	Test Stat
SEX			
Male	3.24	0.36	t-value: 1.465 p-value: 0.145 Description: Not Significant
Female	3.33	0.42	
AGE			
30 years old and above	3.29	0.39	t-value: 0.139 p-value: 0.889 Description: Not Significant
20 to 29 years old	3.30	0.42	
TEACHING EXPERIENCE			
Above 5 years	3.28	0.40	t-value: 0.899 p-value: 0.370 Description: Not Significant
5 years and below	3.35	0.38	
HIGHEST EDUCATIONAL QUALIFICATION			
with Units in Master's to Doctoral Degree	3.40	0.40	t-value: 2.313 p-value: 0.022 Description: Significant
Bachelor's Degree Holder	3.26	0.39	

Legend: NS = Not Significant, p-value ≥ 0.05 S = Significant, p-value < 0.05

Table 17 presents a significant difference in the respondents' teaching practices when grouped according to characteristics. The p-value of 0.145 on sex is more significant than the test of significance of 0.05. It shows no significant difference in the teachers' teaching practices when grouped according to sex. Therefore, the null hypothesis related to this problem is accepted. This means that teachers' teaching practices in the private senior high schools of District 1, Division of Cagayan de Oro City do not differ whether they are male or female. The same table shows that the p-value of 0.889 on age is more significant than the test of significance of 0.05. It shows no significant difference in the teaching practices of the respondents when grouped according to age. Therefore, the null hypothesis related to this problem is accepted. This means that teachers' teaching practices in the private senior high schools of District 1, Division of Cagayan de Oro City do not differ even if they aged between 20 to 59. This result is supported by the study of Maulana, Opdenakker, Stroet, & Bosker (2013). They found out that gender was not a significant variable in the teachers' teaching practices. Another study by Sivri and Balcı [49] found no significant differences in the means of males and females when looking at classroom management and teaching practices.

On the same table, teaching experience has a p-value of 0.370, which is greater than the test of significance of 0.05. It shows no significant difference in the teaching practices of the respondents when grouped according to teaching experience. The null hypothesis relevant to this question is therefore accepted. This means that teachers' teaching activities at private senior high schools in District 1 of the Cagayan de Oro City Division do not vary whether they have been teaching for more than 20 years or less than five years. The study of Benton & Cashin [18] conforms to how teaching practices correlated negatively with teaching experience.

It can gleam on the same table that the p-value of 0.022 on the highest educational qualification is less than the test of significance of 0.05. It shows a significant difference in the teaching practices of the respondents when grouped according to the highest educational qualification. Hence, the null hypothesis related to this problem is rejected. This means that teachers' teaching practices in the private senior high schools of District 1 of the Division of Cagayan de Oro City vary from those who received a Bachelor's degree to teachers with Master's or Doctoral degrees. The higher the educational attainment of the teachers, the higher the learning among learners [4]. A study by Markussen-Brown et al. [51] concluded that teachers with the most advanced education and training appear to be the most effective. They also added that teachers with high educational attainment provide richer language and cognitive experiences and have more positive, sensitive, and responsive interactions. This only means that the respondents are well-capable in creating and executing their effective teaching practices as they move along with their professional development.

4 FINDINGS

Based on the gathered and treated data, the findings of this study are presented in the following:

1. Female teachers dominated the large percentage of senior high school teachers instead of male teachers— most of the respondents aged 20 to 29 years old. The

majority have a teaching experience of 5 years and below and holds Bachelor's Degree. Most of them did not attend any related training and seminars at the international, national, regional, division, and district levels; however, few have attended training and seminars at the school-based level.

2. Teachers showed a very high level of self-efficacy in teaching 21st-century skills such as communication, collaboration, creativity, and critical thinking skills. Furthermore, teaching collaboration skill has the highest meanwhile the teaching critical thinking skill has the lowest mean.
3. Among the teaching practices, communicating high expectations to students has been strongly practiced by the teachers in teaching 21st-century skills; however, student-teacher contact has been least practiced.
4. There is a significant effect in the teaching practices of the teacher when self-efficacy is considered.
5. There is no significant difference in the teachers' teaching practices when grouped according to age, sex, and teaching experience; however, it shows a significant difference when group according to highest educational qualification.

5 Conclusions

Based on the data drawn from the study, these are the following conclusion drawn:

Most teachers have a very high level of self-efficacy in teaching 21st-century skills to students, such as communication skills, collaboration skills, creativity skills, critical thinking skills, and self-efficacy, which also significantly affected teaching practices.

Among the seven (7) teaching practices, teachers have highly practice expressing high expectations to the students by explaining to them what can happen if they do not complete their work on time. On the other hand, there is a need for the teachers to look into ways as to how to strengthen the student-teacher contact, not just serving as an informal mentor or advisor to students.

There is no significant difference in the teaching practice of the respondents when grouped according to age, sex, and teaching experience; however, the highest educational qualification found to have significance with teaching practice.

6 Recommendations

Based on the thorough discussion of the findings along with the conclusions and implications of the study, the following are recommended:

1. Teachers should attend appropriate and timely training programs and seminars, especially on topics like 21st-century teaching skills for their professional growth. These training programs are beneficial to them as they can utilize them to better their teaching practices.
2. School administrators must give more significant support to their teachers by creating a program or sending them to training and seminars to improve their teachers to teach critical thinking skills.
3. Student-Teacher Contact must be highlighted by the teachers not just serving as a mentor or informal advisor to students through the use of technology as their tool of communication but also a person-to-person communication by inviting students to drop by at their office during their vacant hours not just during for consultation since it is an essential factor in student motivation and involvement.
4. The teachers must maintain communicating high expectations by telling them that they expect them to work hard in their classes and explain to students what will happen if they do not complete their work on time.
5. Future researchers may use the study result as a basis for their future data, especially about teachers' self-efficacy and teaching practices.

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