

TWENTY-FIRST CENTURY TEACHING SKILLS AND JOB SATISFACTION: THE CASE OF PUBLIC SENIOR HIGH SCHOOL TEACHERS IN CENTRAL PHILIPPINES

ABSTRACT

Aims: This paper assessed the teachers' practice of the 21st century teaching skills in Central Philippines in terms of critical thinking, collaboration, communication, creativity and innovation, self-direction, making global connection, making local connection, and using technology as tool for learning relative to age, educational attainment, teaching position, and years of teaching experience. Likewise, it determined their job satisfaction in terms of intrinsic and extrinsic factors. It also investigated the differences in their teaching skills practice and job satisfaction when grouped to demographics. Lastly, it correlated the two variables.

Study design: The study utilized the quantitative design particularly the descriptive-comparative and correlational approaches.

Place and Duration of Study: The study was conducted among the public senior high school teachers in Central Philippines during 2021-2022.

Methodology: Using the standardized questionnaires, the study was responded by 242 teachers determined through stratified random sampling. For 21st century teaching skills practice, it was assessed using the scale: 5-very great extent, 4-great extent, 3-moderate extent, 2-poor extent, and 1-very poor extent. Meanwhile, in job satisfaction, it was assessed through the scale: 4-very satisfied, 3-satisfied, 2-dissatisfied, and 1-very dissatisfied. In data analysis, mean, standard deviation, Mann Whitney, Kruskal Wallis, and Spearman rho were used.

Results: Generally, the 21st-century teaching skills (M=4.28, SD= 0.45) were practiced by teachers to a very great extent. The highest-rated domain was collaboration (M=4.43, SD= 0.54) with a very great extent result, while the lowest-rated domain was on making global connections (M=4.11, SD= 0.61) with a great extent rating. Meanwhile, the teachers' job satisfaction (M=3.24, SD= 0.44) was rated satisfied. Intrinsic factors (M=3.31, SD= 0.45) were rated very satisfied, while extrinsic factors (M=3.13, SD= 0.44) were satisfied. The findings showed no significant difference in their 21st-century teaching skills practice when grouped according to age [U=6867.5, p=0.528], educational attainment [U=4610.5, p=0.667], years of teaching experience [U=6782.0, p=0.960], and teaching position [$\chi^2(4)=5.298$, p=0.258]. On the one hand, the findings showed no significant difference in their job satisfaction when grouped according to age [U=7098.0, p=0.838], educational attainment [U=4350.5, p=0.307], years of teaching experience [U=6351.5, p=0.383], and teaching position [$\chi^2(4) =0.755$, p=0.944]. Lastly, the result showed a significant relationship between the practice of 21st-century teaching skills and job satisfaction [$\rho(240) =0.450$, p=0.000] of teachers.

Conclusion: The findings imply the importance of trainings and graduate schooling to continuously improve the teachers' practice of 21st century teaching skills. With this intact, the students' quality learning is ensured. Meanwhile, considering the intrinsic and extrinsic factors to satisfaction is also essential in ensuring the teachers' retention to the profession.

Keywords: Twenty-first century teaching skills, job satisfaction, descriptive-comparative, and correlational, public senior high school teachers, Philippines

1. INTRODUCTION

The teaching skills are essential in meeting the demands of the 21st century educational landscape [1]. When these skills are intact among teachers, they competently provide quality instruction that is globally competitive and contributory to the learners' preparation for life ahead [2]. Additionally, these skills are also necessary in helping them sustain their chosen career and be responsive to the call and challenges of teaching [3]. Hence, these do not only make them conquer the difficulties that may come along their way but guarantee their satisfaction with their profession [4].

Meanwhile, the teachers' satisfaction in the profession is critical in advancing their teaching duties and responsibilities [5]. When their contentment in the profession is in place, the quality of instruction is also ensured [6]. In view of this, the more they are satisfied with their jobs, the more they become committed in performing their teaching tasks [7]. In addition, when there is commitment, there is the continuity of quality teaching and learning [8]. Hence, their contentment in the profession is vital in the success of instruction [9].

However, in the Philippines, the teachers' practice of 21st century teaching skills is compromised due to their complex tasks and responsibilities [10]. Most of them are expected to comply with the different paper works and documentations, attend various trainings and seminars, adapt to the demands of integrating technology in the instruction, and prepare learning materials and instructional plans [11,12]. With the complexity of these duties, most of them would just resort to conventional way of teaching [13]. Not to mention, the effect of the pandemic circumstance which altered the modality of teaching [14,15,16]. With the shifting instructional modality, most of them find it difficult to integrate these 21st century teaching skills in their instruction and eventually affect their satisfaction in the profession [17].

In fact, in the public senior high schools in Central Philippines, there are some factors that affect their disposition and contentment towards teaching [18,19]. There are those who find it difficult to practice their acquired teaching skills from seminars and training since most of them are not designed and prepared for online and modular instruction [20]. No matter how skillful they are in teaching, the pandemic circumstance would limit their skills since they could not meet their students face to face. Some would even have problems in terms of using the learning management system since these platforms are mostly new to them and were abruptly implemented [21]. Not to mention the issues on connectivity on both the teachers and students' ends [22,23]. With these experiences, their satisfaction towards their profession is put to question [24].

Several studies were conducted on 21st century teaching skills in the Philippines. Tuazon and Sumadsad [25] made a study on the 21st century skills teaching practices and its impact on the students' academic performance, Zamora and Zamora [26] conducted research focusing on the 21st century teaching skills in relation to the teaching standards competence of teachers, Inocian [27] studied on the 21st century skills in teaching economics, and Boholano [28] conducted on 21st century teaching skills vis-à-vis smart social networking. On the one hand, several studies were conducted on job satisfaction in the country especially among public schools: Bona [29] made a study solely focusing on the job satisfaction of public school teachers, Baluyos et al. [30] conducted a study correlating job satisfaction with work performance of teachers, City [31] studied on K to 12 public teachers using multiple statistical tools, and Tindowen et al. [32] conducted a correlational study on organizational commitment and job satisfaction of senior high school teachers. Given the available studies, there is a dearth of literature especially in terms of correlating the two constructs among public senior high schools. This is the research gap which this study would like to fill in.

1.1 Research Problem

This paper assessed the practice of the 21st century teaching skills of public senior high school teachers in Central Philippines during the school year 2021-2022 in terms of critical thinking, collaboration, communication, creativity and innovation, self-direction, making global connection, making local connection, and using technology as tool for learning when they are taken as a whole and grouped according to age, educational attainment, teaching position, and years of teaching experience. Likewise, it determined their job satisfaction in terms of intrinsic and extrinsic factors. Also, it investigated the significant differences in their practice of the 21st century teaching skills and job satisfaction when grouped according to the demographics. Lastly, it checked the significant relationship between the two constructs.

1.2 Theoretical Framework

The study theoretically assumed that the teachers' practice of the 21st century teaching skills influences their job satisfaction. This assumption was anchored on the equity theory of Adams [33]. The theory perceives that the employees' job satisfaction comes from the balance generated from the input and output. The input includes their hard work, enthusiasm, and practice of skills while the output comes from the result of their efforts like salary, recognition, and responsibility. Meaning, they become job satisfied when these two are acquired. In fact, when balanced along with the fair treatment, they are not just job satisfied but also motivated and contributory to the productivity. This theory also argues that when they feel that their input is greater than the output, they tend to become demotivated. Hence, balance is imperative.

In this study, the equity theory has something to say with the teachers' teaching skills practice and job satisfaction. Their job satisfaction is highly influenced by their practice of the 21st century teaching skills. However, there should be equity in providing them equal and fair treatment to generate balance between their input and output, between their work and recognition. Hence, with these acquired and balanced, the teachers' quality teaching skills practice is guaranteed and their job satisfaction as well.

2. METHODOLOGY

2.1 Research Design

The study utilized the quantitative research design particularly the descriptive-comparative, and correlational approaches. This design describes the results of the given variables using appropriate statistical tools and procedures [34]. The descriptive approach assessed the teachers' extent of practice of 21st century teaching skills and their level of job satisfaction. Meanwhile, the comparative approach investigated the significant differences in the 21st century teaching skills practice and job satisfaction when grouped according to the demographics. Finally, the correlational approach determined the relationship between the two constructs.

2.2 Respondents

The respondents of the study were the 242 teachers of the public senior high schools in Central Philippines during 2021-2022. They were determined using the stratified random sampling and fishbowl technique.

Table 1
Demographic Profile of the Respondents

Variable	f	%
Division		
School A	61	25.2
School B	34	14.0
School C	55	22.7
School D	36	14.9
School E	26	10.7
School F	30	12.4
Age		
Younger (36 years and below)	136	56.2
Older (37 years and above)	106	43.8
Educational Attainment		
Without graduate degree	50	20.7
With graduate degree	192	79.3
Teaching Position		
Teacher 1	41	17.0
Teacher 2	141	58.3
Teacher 3	47	19.4
Master Teacher 1	11	4.5
Master Teacher 2	2	0.8
Years in Teaching		
Shorter (8 years and below)	153	63.2
Longer (9 years and above)	89	36.8
Total	242	100.0

Note: Average age=36.5 years old
Average years in teaching =8.4 years

2.3 Research Instrument

In assessing the practice of the 21st century teaching skills, the standardized questionnaire developed by Ravitz [35] was employed. It has 47 items spread across 8 areas namely: critical thinking, collaboration, communication, creativity and innovation, self-direction, making a global connection, making local connection, and using technology as a tool for learning. The questionnaire was responded using 5-point Likert scale: 5-very great extent, 4-great extent, 3-moderate extent, 2-poor extent, and 1-very poor extent. In terms of the validity of the instrument, the questionnaire was validated by the author using Good and Scates [36] with index of 4.75. To fit in the context of the Philippine teachers, the instrument was pilot tested to 30 non-actual respondents and yielded a reliable Cronbach's Alpha score of 0.979.

In terms of assessing the teachers' job satisfaction, the Minnesota Satisfaction Questionnaire by Weiss et al. [37] was utilized. It has 20 items spread across the two areas namely: intrinsic and extrinsic. This was responded using 4-point Likert scale: 4-very satisfied, 3-satisfied, 2-dissatisfied, and 1-very dissatisfied. The questionnaire was subjected to face validation in the study of Ballarta and Roberto [38] and established an index rating of 4.92. A pilot test was conducted to 30 non-actual respondents and yielded a reliable Cronbach's Alpha score of 0.895.

2.4 Data Analysis

In analyzing the data, the descriptive-comparative and correlational analyses were employed. The descriptive analysis was used in analyzing the practice of 21st century teaching skills and job satisfaction

of teachers using mean and standard deviation. Meanwhile, Kolmogorov-Smirnov was used to determine the normality test results of the variables. Normality test revealed that the variables 21st century teaching skills [KS=0.068, p=0.008], and job satisfaction [KS=0.095, p=0.000] were not normally distributed. Since the variables were not normally distributed, hence the use of non-parametric statistical tools. The comparative analysis compared the two variables when the teachers were grouped according to the demographics using Mann Whitney U test and Kruskal Wallis. Lastly, the correlational analysis was employed to correlate the two constructs using Spearman rank correlation.

2.5 Ethical Considerations

The study ensured the ethical soundness of the paper in adherence to the general principles of respect for persons, justice, and beneficence by the Philippine Health Research Ethics Board (PHREB). Lastly, it ensured the privacy of the respondents and the confidentiality of all the data gathered.

3. RESULTS AND DISCUSSION

Practice of the 21st Teaching Skills of the Public Senior High School Teachers

The 21st-century teaching skills are the competencies that the teachers are expected to demonstrate in ensuring the quality instruction, learning acquisition, and global competitiveness among the learners [35]. Table 2 presents the extent of practice of the 21st-century skills of public senior high school teachers in Central Philippines. Generally, the 21st-century teaching skills (M=4.28, SD= 0.45) are practiced by teachers to a very great extent. The highest-rated domain is collaboration (M=4.43, SD= 0.54) with a very great extent result, while the lowest-rated domain is on making global connections (M=4.11, SD= 0.61) with a great extent rating.

Generally, the very great extent rating indicates that the public senior high school teachers always demonstrate the 21st century teaching skills. The exceptional rating of the teaching skills practice among these public-school teachers is a manifestation of their competencies in delivering the 21st century instruction. This outstanding rating could be attributed to the regular in-service trainings and seminars conducted among public school teachers in ensuring the quality delivery of the curriculum of the Department of Education [39]. Part of these in-service trainings are the essential skills which they need to acquire to successfully advance the 21st century lessons to the learners [40]. Aside from this, these teachers are consistently monitored and evaluated if their instructional pedagogies adhere to the DepEd's expectations [41].

Meanwhile, the Department of Education's Results-Based Performance Management System (RPMS) that is aligned with the Philippine Professional Standards for Teachers (PPST) is also helpful in evaluating the performance of the public-school teachers [42,43]. These performance standards are regularly conducted among these teachers to ensure the alignment of their skills in delivering the 21st century instruction [44,39]. Aside from this, there were also studies that assessed the teaching competence of teachers using this Philippine Professional Standards for Teachers (PPST) which also gave empirical data on the public-school teachers embodiment of the 21st century teaching skills [45].

In support, these attributions signify how important the regular monitoring and evaluation of teachers are aside from trainings and seminars in ensuring their practice of the 21st century teaching skills. According to Bha and Ye [5], teacher evaluation is essential to check whether they adhere to the standards of teaching vis-à-vis the quality education. Standards are potential indicators to measure their quality performance of the profession [43]. Meanwhile, in-service trainings and seminars are also necessary among these teachers to acquire the essential skills in teaching [46,47]. For example, during this pandemic circumstance, these trainings and seminars among public schools played a major role in providing the teachers with the mechanism to cope up the shift of instructional modality [48]. With this, they were taught on how to utilize the technology in delivering instruction among their learners [28].

Given the tabular results, the great extent rating could also be influenced by the outnumbering teachers with graduate degrees. There is a study which claim that those with graduate degrees are practicing the 21st century teaching skills than their counterpart [49]. This only indicates that graduate school is also critical for teachers to practice the teaching skills. In fact, according to Pañares et al. [45], graduate education is a potential avenue for teachers to develop the knowledge, skills, and attitude in teaching. Hence, this implies the importance of graduate schooling among teachers to grow professionally and practice the 21st century teaching skills.

The rating of collaboration as the highest rated domain indicates that the teachers well demonstrate this skill among all the dimensions of the 21st century teaching skills. Its exceptional rating could be influenced by the teachers' collaborative experiences, especially during the pandemic. In public schools, there are collaborative opportunities among teachers like the Learning Activity Cell (LAC) session which encourages them to participate with the purpose of improving the teaching and learning processes [44]. During this circumstance, most of the teachers were affected by the shift in the instructional modality but with the collaboration of the teachers, they were able to cope up with the paper works, compliances, and instructional preparations [50,22]. Indeed, this circumstance strengthened the teachers' teamwork to survive the demands of the new normal teaching [20]. In fact, this event has even provided them the opportunity to collaborate in establishing continuity plans and feedback on methods of instruction which helped developed their collaborative skills [51].

Demographically, the assessment was mostly responded by younger, shorter years of teaching experience and with graduate degree teachers. These contexts could possibly influence the outstanding rating of collaboration. There is a study which perceive that the younger the teachers and the shorter in teaching experience are more collaborative than those older and longer in teaching [52]. In fact, the older and longer the teachers are in teaching the more they are resistant to changes and collaborative activities [53]. On the one hand, those with graduate degrees are much more acquainted with the importance of collaboration as one of the 21st century skills which possibly affected the rating. Darling-Hammond et al. [54] would agree that those with graduate degrees are found to be more collaborative than those without.

Meanwhile, in terms of making global connection as the lowest-rated domain, this shows that among all the 21st century teaching skills, this needs improvement. Its great extent result does not mean low but for the teachers to outstandingly demonstrate this skill, then, this aspect needs attention among public schools. On the one hand, its great extent rating could be influenced by the outnumbering teachers with graduate degrees. Their engagement into research, international conferences, and publications has made way for their global connection skills to be demonstrated. In support, the study of Vykhreshch et al. [49] found that the graduate education provides the teachers the opportunity to widen their horizon from local to international level. It also allows them to situate themselves in the context of other cultures and backgrounds, which help them improve their knowledge, skills, and attitude in life [45]. Hence, these findings imply the importance of graduate schooling among public senior high school teachers to guarantee the exceptional practice of the global connection skill.

Table 2A. Extent of Practice of the 21st Century Teaching Skills

Variables	Critical Thinking			Collaboration			Communication		
	M	SD	Int	M	SD	Int	M	SD	Int
Age									
Younger	4.25	0.51	VG	4.46	0.51	VG	4.28	0.53	VG
Older	4.23	0.53	VG	4.40	0.58	VG	4.22	0.61	VG
Educational Attainment									
With Graduate Degrees	4.24	0.49	VG	4.34	0.57	VG	4.22	0.53	VG
Without Graduate Degrees	4.24	0.53	VG	4.46	0.53	VG	4.26	0.58	VG
Years of Teaching Experience									
Shorter	4.25	0.52	VG	4.43	0.53	VG	4.23	0.54	VG
Longer	4.22	0.51	VG	4.44	0.56	VG	4.29	0.61	VG
Teaching Position									
Teacher 1	4.25	0.62	VG	4.35	0.60	VG	4.17	0.79	GE
Teacher 2	4.25	0.49	VG	4.45	0.53	VG	4.23	0.49	VG
Teacher 3	4.12	0.50	GE	4.43	0.53	VG	4.31	0.54	VG
Master Teacher 1	4.66	0.41	VG	4.47	0.60	VG	4.56	0.53	VG
Master Teacher 2	4.07	0.10	GE	5.00	0.00	VG	4.70	0.14	VG
As a whole	4.24	0.52	VG	4.43	0.54	VG	4.25	0.57	VG

Mean Range: 1.00-1.80=Very Poor Extent (VP), 1.81-2.60=Poor Extent (PE), 2.61-3.40=S Moderate Extent (ME), 3.41-4.20=Great Extent (GE), 4.21-5.00=Very Great Extent (VG)

Table 2B. Extent of Practice of the 21st Century Teaching Skills

Variables	Creativity and Innovation			Self-Direction			Making global connection		
	M	SD	Int	M	SD	Int	M	SD	Int
Age									
Younger	4.31	0.53	VG	4.31	0.53	VG	4.15	0.63	GE
Older	4.25	0.56	VG	4.27	0.53	VG	4.05	0.59	GE
Educational Attainment									
With Graduate Degrees	4.28	0.53	VG	4.28	0.54	VG	4.04	0.56	GE
Without Graduate Degrees	4.29	0.54	VG	4.29	0.53	VG	4.12	0.63	GE
Years of Teaching Experience									
Shorter	4.27	0.56	VG	4.29	0.54	VG	4.13	0.63	GE
Longer	4.31	0.50	VG	4.30	0.51	VG	4.07	0.59	GE
Teaching Position									
Teacher 1	4.27	0.62	VG	4.25	0.59	VG	4.11	0.63	GE
Teacher 2	4.29	0.52	VG	4.27	0.52	VG	4.11	0.61	GE
Teacher 3	4.22	0.54	VG	4.31	0.52	VG	4.04	0.60	GE
Master Teacher 1	4.69	0.44	VG	4.51	0.45	VG	4.23	0.69	VG
Master Teacher 2	4.10	0.14	GE	4.50	0.51	VG	4.42	0.59	VG
As a whole	4.29	0.54	VG	4.29	0.53	VG	4.11	0.61	GE

Mean Range: 1.00-1.80=Very Poor Extent (VP), 1.81-2.60=Poor Extent (PE), 2.61-3.40=S Moderate Extent (ME), 3.41-4.20=Great Extent (GE), 4.21-5.00=Very Great Extent (VG)

Table 2C. Extent of Practice of the 21st Century Teaching Skills

Variables	Making local connection			Using Technology as a Tool for learning			21 st Century Teaching Skills		
	M	SD	Int	M	SD	Int	M	SD	Int
Age									
Younger	4.20	0.60	GE	4.40	0.57	VG	4.30	0.43	VG
Older	4.29	0.60	VG	4.31	0.61	VG	4.25	0.46	VG
Educational Attainment									
With Graduate Degrees	4.21	0.58	VG	4.34	0.57	VG	4.25	0.45	VG
Without Graduate Degrees	4.25	0.60	VG	4.36	0.59	VG	4.29	0.45	VG
Years of Teaching Experience									
Shorter	4.18	0.60	GE	4.41	0.56	VG	4.28	0.46	VG
Longer	4.34	0.58	VG	4.27	0.62	VG	4.28	0.43	VG
Teaching Position									
Teacher 1	4.13	0.59	GE	4.21	0.66	VG	4.22	0.53	VG
Teacher 2	4.20	0.61	GE	4.41	0.54	VG	4.28	0.43	VG
Teacher 3	4.33	0.55	VG	4.25	0.64	VG	4.25	0.42	VG
Master Teacher 1	4.67	0.42	VG	4.56	0.52	VG	4.54	0.40	VG
Master Teacher 2	4.70	0.42	VG	5.00	0.00	VG	4.56	0.18	VG
As a whole	4.24	0.60	VG	4.36	0.59	VG	4.28	0.45	VG

Mean Range:1.00-1.80=Very Poor Extent (VP),1.81-2.60=Poor Extent (PE),2.61-3.40=S Moderate Extent (ME),3.41-4.20=Great Extent GE),4.21-5.00=Very Great Extent (VG)

Level of Job Satisfaction of Teachers

Job satisfaction is perceived as the teachers' general feeling and impression of happiness and contentment towards their work which could be an interconnection of their personal and job-related factors [8]. Table 3 presents the level of job satisfaction of public senior high school teachers in Central Philippines. Generally, the teachers' level of job satisfaction (M=3.24, SD= 0.44) is rated satisfied. Intrinsic factors (M=3.31, SD= 0.45) are rated very satisfied, while extrinsic factors (M=3.13, SD= 0.44) are satisfied.

The overall rating indicates that the teachers' impression of contentment towards their profession is within the expected level only. This means to say that despite its high rating, there is a need for the public schools to continuously improve in terms of their programs for faculty to increase their satisfaction and hit the highest mark. With the satisfied rating, improvement is critical because the teachers' satisfaction with their work highly dictates their commitment to stay in the profession and perform the expected tasks and responsibilities. In fact, Baluyos et al. [30] and Ballarta and Roberto [38], highly perceived the job satisfaction of teachers as an essential element in the continuity of quality teaching and learning. Meaning, when they are highly satisfied, they will not just teach but unreservedly give their lives for the profession to be successfully advanced [32].

Demographically, the fact that most of the teachers who responded were with graduate degrees, the satisfied rating of the overall assessment could be attributed to this. The result shows that those with graduate degrees are very satisfied than those without. In support, there are studies which claim that those with graduate degrees are more satisfied than their counterpart [55]. With their attainment of the highest educational degrees, they find more meaning and satisfaction in their profession [56]. In fact, according to Nyamubi [57], graduate degrees potentially provide a sense of direction and contentment to the teachers in the performance of their profession.

Meanwhile, the very satisfied rating of intrinsic factors over extrinsic factors with satisfied rating only indicates that the public schools' programs for improvement of the teachers' satisfaction should be focused more on the external factors. The satisfied rating of the extrinsic factors does not mean low but suggests the need for continuous improvement to sustain the teachers' satisfaction. Most of the studies agree that the teachers who embrace teaching are already aware of the complexity of their chosen work but what they cannot control are those factors that affect their disposition towards work externally [8,47].

Basically, most of the external factors that need improvement to guarantee the teachers' satisfaction are on the financial, environmental, professional development, and support system as supported by Bona [29], Akram et al. [58], and Baluyos et al. [30]. These elements are also critical in sustaining their profession aside from their inner choice to stay in teaching. In fact, according to City [31], these external factors are potential aid to the intrinsic motivation of the teachers to perform their complex tasks and responsibilities.

Elaboratively, the very satisfied rating of the intrinsic factors indicates that the teachers are internally driven and motivated to perform their profession. Despite the complexity of their work, they still have the inner desire to teach. Suryani et al. [59] agree that teaching entails deeper introspection and motivation. One can only survive teaching when it is perceived as ministry. With the result of a very satisfied rating, it could be that most of them see teaching as a vocation. Nyamubi [57] and Jahan and Ahmed [8] perceive that teaching is not just a profession but a vocation since the job requires the teachers to perform beyond what is expected. In the case of public teachers, despite the low salary and the complex duties and responsibilities, they continue to teach because most of them see their profession as ministry, hence, their intrinsic motivation and satisfaction are also in place [60]. With these, the findings imply the importance among public schools the provision of programs that elicit the teachers' high recognition of their profession as a calling.

In terms of the satisfied rating of the extrinsic results, this indicates that between the two dimensions of job satisfaction, this needs more attention. The result is high. However, by improving this, it can strengthen the full job satisfaction of the teachers. Most literature agrees that external factors are normally rated lower than intrinsic factors because these are beyond their control [60,8,29,30]. In Hidayatullah et al. [47], the schools should investigate the environment, administrative support, and reward system because these elements are potential external factors to make the teachers highly satisfied with their profession. Tiwa et al. [61] believe that teachers perform and excel in everything they do in a favorable atmosphere. Meanwhile, Renata et al. [62] perceive that when the teachers are supported, they become satisfied and go beyond what is expected. The same goes for the reward system. When teachers are appreciated and properly compensated, they see teaching as life and not just as a profession, as supported by City [31].

With regards to the teaching profession, the results show that those teacher 1 instructors and master teachers 1 and 2 are more satisfied than their counterparts. This could be because the teacher 1 instructors are normally very satisfied since they are happy to be accepted in the teaching profession regardless of their promotions. They also have the hype of teaching as novice as supported by Alufohai and Ibhafidon [53]. On the one hand, the master teachers 1 and 2 are also very satisfied because they have already somehow reached the pedestal of their career as highly ranked teachers. In support, Jahan and Ahmed [8] agree that the more the teachers are promoted, the more they find satisfaction in their profession. With all these findings, these imply the importance among public schools to consider both the intrinsic and extrinsic factors to encourage and ensure the satisfaction of the teachers to stay and teach.

Table 3. *Level of Job Satisfaction of the Public Senior High School Teachers*

Variable	Intrinsic Factors			Extrinsic Factors			Job Satisfaction		
	M	SD	Int	M	SD	Int	M	SD	Int
Age									
Younger	3.31	0.43	VS	3.14	0.58	S	3.25	0.42	S
Older	3.31	0.49	VS	3.11	0.55	S	3.23	0.47	S
Educational Attainment									
With Graduate Degrees	3.35	0.54	VS	3.14	0.61	S	3.27	0.53	VS
Without Graduate Degrees	3.31	0.43	VS	3.13	0.55	S	3.23	0.42	S
Years of Teaching Experience									
Shorter	3.31	0.44	VS	3.17	0.58	S	3.26	0.44	S
Longer	3.31	0.47	VS	3.06	0.54	S	3.21	0.45	S
Teaching Position									
Teacher 1	3.27	0.45	VS	3.29	0.50	VS	3.28	0.40	VS
Teacher 2	3.31	0.46	VS	3.11	0.60	S	3.23	0.46	S
Teacher 3	3.35	0.44	VS	3.03	0.46	S	3.22	0.39	S
Master Teacher 1	3.32	0.59	VS	3.24	0.63	S	3.29	0.55	VS
Master Teacher 2	3.50	0.12	VS	3.19	1.15	S	3.38	0.53	VS
As a whole	3.31	0.45	VS	3.13	0.56	S	3.24	0.44	S

Mean Range: 1.00-1.75=Very Dissatisfied (VD), 1.76-2.50= Dissatisfied (D), 2.51-3.25= Satisfied (S), 3.26-4.00= Very Satisfied (VS)

Difference in the Practice of the 21st-Century Skills of Teachers

Table 4 presents the difference in the extent of practice of the 21st-century teaching skills of public senior high school teachers in Central Philippines when grouped according to age, educational attainment, years of teaching experience, and teaching position. Using the Mann Whitney U Test, the findings showed no significant difference in their practice of 21st-century skills when grouped according to age [U=6867.5, p=0.528], educational attainment [U=4610.5, p=0.667], and years of teaching experience [U=6782.0, p=0.960]. Hence, the null hypotheses are accepted. Using Kruskal Wallis, there is no significant difference when grouped according to teaching position [$\chi^2(4) = 5.298$, p=0.258]. Hence, the null hypothesis is accepted.

The no difference results found when grouped according to their age, educational attainment, years of teaching experience, and teaching position indicates that these demographics have nothing to do with the teachers' practice of the 21st century teaching skills. Aside from this, the result shows that these teachers given their demographics have similar views on teaching skills practice. Perhaps, these public senior high school teachers do not have varied perceptions because their practice of the 21st century teaching skills does not depend much on how old and longer they have been in the profession. This also does not rely on the level of their education and position in teaching [63].

The no difference results on the assessment could be attributed to the fact that all the teachers in the public schools are expected to perform the teaching skills to cater to the needs of the 21st century learners. They don't have varied views of the assessment because this call to demonstrate these skills in teaching is not based on their age, educational attainment, years of teaching experience, and teaching position. Meaning to say, all should be practicing these, since the demands of the 21st century instruction is not limited to these demographics [63]. During this pandemic, where there is a change in instructional modality, all the teachers regardless of these demographics are tasked to shift their way of teaching employing the varied skills in teaching to cater to the needs of the students at home [50,22].

The call to practice these skills is manifested in the seminars and trainings of the public-school teachers where young and old, with graduate degrees or none, have been staying shorter or longer, and whatever teaching positions, all are requested to attend and participate as mandated by the Department of Education [50,51]. With these trainings and seminars, all are expected to demonstrate these skills in the delivery of their teaching and the performance of their tasks and responsibilities to address the effect brought by the circumstance [40,30].

Hence, these findings imply that the call of practicing the 21st century skills is not limited to the teachers' demographics. In addition, this also signifies how important it is for the public schools to encourage their teachers to attend the trainings and seminars to acquire and demonstrate these skills in meeting the demands of the 21st century instruction. However, with the limitation to the four demographics, perhaps further studies are encouraged to validate the claims of this study.

Table 4. *Difference in the Practice of the 21st Century Teaching Skills*

Variables	U	z	p
Age	6867.500	-0.630	0.528
Educational Attainment	4610.500	-0.430	0.667
Years in Teaching	6782.000	-0.050	0.960
Variables	χ^2	df	p
Teaching Position	5.298	4	0.258

Note: difference is significant when $p \leq 0.05$

Difference in the Job Satisfaction of Public Senior High School Teachers

Table 5 presents the difference in the level of job satisfaction of public senior high school teachers in Central Philippines when grouped according to age, educational attainment, years of teaching experience, and teaching position. Using Mann Whitney U Test, the findings showed no significant difference in their job satisfaction when grouped according to age [U=7098.0, $p=0.838$], educational attainment [U=4350.5, $p=0.307$], and years of teaching experience [U=6351.5, $p=0.383$]. Hence, the null hypotheses are accepted. Using Kruskal Wallis, there was no significant difference when grouped according to teaching position [$\chi^2(4) = 0.755$, $p=0.944$]. Hence, the null hypothesis is accepted.

The no difference found when grouped according to age, educational attainment, years of teaching, and teaching position indicates that the teachers' assessment vis-à-vis the demographics has nothing to do with their job satisfaction. In addition, they have similar views of satisfaction considering the demographics employed. The results of this study agree with the findings of Romo [56] that their satisfaction with their jobs do not vary according to these demographics.

Perhaps, the teachers do not have varied perceptions because it might be that their satisfaction with teaching does not primarily depend on how old they are, how long they have been teaching, how high the level of their education, and how high they have been promoted to a certain teaching position [56,38].

Interestingly, there are studies claiming that the teachers' satisfaction in the profession does not basically come from these demographics. The findings of Suryani et al. [59] argue that the teachers become satisfied in teaching when they are motivated and encouraged. In addition, they find satisfaction to teach when they are provided the conducive environment to perform their work and are supported by their administrators [7].

In fact, Jahan and Ahmed [8] and Nyamubi [57], perceived that a favorable school environment elicits higher job satisfaction among the teachers because with this, they are given the opportunity to share their expertise. On the one hand, the studies of Nyamubi [57] and Suryani et al. [59] strongly believe that the support of the administrators is one factor that can develop the disposition and satisfaction of the teachers to teach and perform their complex duties and responsibilities.

These findings mean to say that their satisfaction could be strongly coming from their motivation to teach. Motivation according to Bona [29] and Afshar and Doosti [60] is considered as a potential stimulus for teachers to continue perform their profession that when in place may result to their greater job satisfaction. However, to validate these claims, further studies are encouraged. These findings imply the importance of favorable atmosphere and administrators' unreserved support among the public senior high school teachers to guarantee their motivation and satisfaction with their teaching profession.

Table 5. *Difference in the Job Satisfaction of Public Senior High School Teachers*

Variables	U	z	p
Age	7098.000	-0.204	0.838
Educational Attainment	4350.500	-1.021	0.307
Years in Teaching	6351.500	-0.872	0.383
Variables	χ^2	df	p
Teaching Position	0.755	4	0.944

Note: difference is significant when $p \leq 0.05$

Relationships between the Practice of 21st-Century Teaching Skills and Job Satisfaction

Table 6 presents the relationship between the extent of practice of 21st-century teaching skills and job satisfaction of public senior high school teachers in Central Philippines. Using Spearman rank correlation, the result showed a significant relationship between the practice of 21st-century teaching skills and job satisfaction [$\rho(240) = 0.450$, $p = 0.000$] of teachers. Hence, the null hypothesis is rejected.

The significant relationship result between the two constructs shows that the teachers' practice of 21st century teaching skills influences their satisfaction towards the teaching profession. In other words, the practice of these skills among these public senior high school teachers may result to their greater teaching contentment. Additionally, this also implies the need for these schools to provide their teachers with the essential trainings and programs that elicit the acquisition and practice of these 21st century teaching skills to guarantee their satisfaction with their work.

The significant correlation result of this study is congruent with the findings of Raharhaya et al. [6], Bha and Ye [5], and Akram et al. [58] which all agreed that the teachers' practice of teaching skills has something to say with their disposition and satisfaction towards work.

There are studies which claim that the more the teachers demonstrate the skills in teaching, the more they see the beauty in performing the profession [8,32]. Aside from this, some of their greatest struggles in teaching is the delivery of the instruction considering the diversity and disposition of the learners where some are eager to learn, and some are not [64]. There are also those who find it difficult to integrate technological pedagogy in teaching, but when they conquer these responsibilities and successfully deliver to the students the instruction, the more it increases their satisfaction and eagerness to teach [22,4]. In view of this, teaching skills are essential for them to find meaning in what they do [60]

There are also some studies arguing that when the teachers are skillful in teaching, they find themselves qualified and committed to stay in the profession because they believe they can exemplify the expected complex instructional tasks and responsibilities [3,7,8]. One finds it difficult to stay and be committed and satisfied when they do not have the essential skills to survive the call of teaching, most especially that they are expected to embrace and perform the 21st century instructions [19]. The findings of Martinez [3] and Eliyana et al. [9] claim that the 21st century skills in teaching are critical elements for teachers to stay longer in the profession considering the changing instructional landscape.

Given the findings, these imply how essential the acquisition and practice of these 21st century teaching skills among public senior high school teachers in finding meaning and satisfaction in what they do. This also signifies the importance of training them to successfully demonstrate these skills to also increase their disposition, eagerness, and contentment in the profession.

Table 6. *Relationship between 21st Century Teaching Skills and Job Satisfaction*

Variable	ρ	df	p
21st Century Teaching Skills x Job Satisfaction	0.450*	240	0.000

Note: *correlation is significant when $p \leq 0.05$

The study perceived that the practice of teaching skills of public senior high school teachers influences their job satisfaction. With the correlation between the extent of practice of 21st-century teaching skills and their level of job satisfaction, the theory of equity by Adams [33] is validated. In other words, the result of this study supports the veracity of the equity theory that the practice of teaching skills strongly affects job satisfaction. The result also supports the truthfulness of this theory that the teachers' job satisfaction highly depends on the balance generated between their work as input and recognition of their efforts as output. With this, continuous improvement of skills and fair treatment among these teachers are essential in their practice of 21st-century teaching skills and satisfaction with their teaching profession.

4. CONCLUSION

The very great extent rating of the practice of the teaching skills clearly shows that the public senior high school teachers of Central Philippines demonstrate the essential skills which are expected of them to perform in delivering the 21st century instruction. However, despite the exceptional rating, continuous improvement is still necessary to ensure their sustainable quality instruction in making their learners competitively meet the global educational demands. With this practice of skills intact, they do not just improve their performance and disposition towards their profession but also sees to it that their learners best acquire the competencies that will prepare them for life ahead. That is why, it is implied how important trainings are to boost these skills and successfully advance the quality 21st century teaching and learning. Aside from this, it is noteworthy to mention how essential graduate schooling is for teachers to be aware and practicing of these skills. By their submission to this professional development, they are given the opportunity to grow professionally and upscale their knowledge, skills, and attitude in the practice of their teaching profession.

With the satisfied rating of the teachers' job satisfaction, these signify the importance of considering the intrinsic and extrinsic factors that affect their contentment in the teaching profession to meet the very satisfied result. By continuously improving these aspects, the public schools establish a sustainable assurance of preventing them from leaving. By preventing their attrition, their commitment and continuity of quality instruction among the learners is also guaranteed. Meanwhile, the validation of the theory as supported by the correlation of the two constructs shows the essentials of the teachers' practice of 21st century teaching skills in establishing their satisfaction. That is why, necessary provisions of programs that develop their acquisition and practice of skills are important since it influences their disposition towards their profession.

5. LIMITATIONS OF THE FINDINGS

The study has several limitations. Considering the method used, the study is only limited to quantitative research particularly the descriptive-comparative and correlational approaches. In terms of the variables, this paper is limited to the point of view of the public senior high school teachers among selected schools

especially in the context of 21st century skills. Regarding the demographics, the study is limited to the four demographics namely: age, educational attainment, teaching position, and years of teaching experience.

6. DIRECTION FOR FUTURE RESEARCH

Considering the limitations, further studies are encouraged. With regards to the method used, future researchers are encouraged to employ qualitative and mixed method approaches to validate and deepen the findings of the study. Additionally, further studies could be conducted focusing on the point of view of the learners specifically on 21st century skills. With regards to the demographics, they can also replicate the study using the same variables to validate the claims of this study or they can employ other demographic variable to further the findings. Finally, the future researchers can also conduct studies making use of the large scale of participants perhaps provincial or nationwide to check the veracity of these findings.

10. CONSENT

As per international standard or university standard, the respondents' written consents were collected and preserved by the authors.

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