21ST CENTURY TEACHING, DIGITAL READINESS, AND MOTIVATION: INSIGHTS FROM FILIPINO HIGH SCHOOL TEACHERS

ABSTRACT

Aims: This study aims to investigate the teachers' live experiences in teaching Filipino in senior high schools in Region 12. It utilizes the mixed method focusing on the explanatory sequential design to analyze the relationships between the level of teachers in the 21st century of teaching, digital readiness, and motivation in teaching Filipino among senior high school teachers.

Study design: An explanatory sequential mixed method design was employed for this study.

Place and Duration of Study: The study was conducted at the public senior high school of Region 12, using a stratified random sampling technique to select 400 teachers for the academic year 2024-2025.

Methodology: 400 teachers were selected, and data was collected through e-surveys using three questionnaires. The mean, Pearson correlation coefficient (r), regression, and thematic analysis were utilized for data analysis. Purposive sampling is the method used to select participants in the qualitative design, using a guided questionnaire to gather data from In-depth interviews and focus group discussions. The 21st-century teaching and digital readiness of senior high school teachers were found to have a significant relationship with teachers' motivation in teaching Filipino.

Results: It has been discovered that the teaching motivation of teachers was at the highest level while the two variables were at a high level, meaning that the respondents frequently exhibited them. The teachers' 21st-century teaching and digital readiness have a significant relationship with their motivation in teaching Filipino. Choosing the digital citizenship, dispositions, planning blended activities, and planning blended assessment in 21st-century teaching. The participation of teachers with digital tool applications, digital applications, digital media awareness, information search skills, and information sharing behavior are indicators of digital readiness. This indicates that 21st-century teaching, digital readiness, and participation of teachers play an important role in the motivation of teaching Filipino in the secondary schools of Region 12.

Conclusion: The study showed a positive relationship between 21st-century teaching, digital readiness, and motivation in teaching in Filipino among senior high school teachers. The high mean scores (21st Century Teaching: 4.17; Digital Readiness: 4.08; Motivation: 4.32) and low standard deviation indicate a high level of knowledge and skills among teachers in using technology. The quantitative results revealed a significant correlation (r-value: .647, p-value: .000) between the mentioned variables, suggesting that high knowledge of digital tools leads to increased motivation in teaching. The F-value of 231.833, R-value of .734, and R^2 of .539 demonstrate that 21st Century Teaching and Knowledge in Digital Readiness have a 54% impact on teachers' motivation.

*

19

1. INTRODUCTION

21

One possible reason for student failure and decline is the use of ineffective teaching methods. One reason for the failure in teaching foreign languages in Turkey is the loss of motivation. Similarly, in Indonesia, there is a low level of proficiency in Mathematics due to unengaging learning experiences and a lack of motivation. (Yilmaz et al., 1-13; Andrian et al., 259-272). This indicates that if teachers lack motivation to teach a lesson, it results in poor outcomes, and students are also not very interested in learning their subjects. (Tambunan, 42-47; Yilmaz et al., 1-13; Andrian et al., 259-272).

Teachers' motivation is one of the key elements of learning and teaching. They are the individuals who constantly interact with students, implement the curriculum, direct the teaching process, and evaluate both students and teaching. The education system's success truly depends on the qualifications of the teachers who will operate and implement the learning system (Yildiz 119-131; Almaiah et al. 3197).

According to Jumaboyeva (84–88) and Bardach (283–297), motivation is important in teaching because students learn by engaging in the teaching process. Self-confidence and self-esteem can be pathways to encouragement, which may be key to effective learning. Evidence from the study shows that the mechanics of incentives motivated more engineering students to engage in higher-quality activities that benefit their studies (Rincon-Flores et al. 49).

On the other hand, Hossein-Mohand (341-352), Lalima (129-136), and Holmes (21-34) have confirmed the relationship between motivation and teaching the Filipino subject in the 21st century, particularly regarding student performance. The use of technology in secondary education for mathematics learning is influential and beneficial for their studies and the improvement of their academic performance. Evidence has established a significant correlation between the use of ICT for educational purposes and students' academic level, as well as the time spent on the Internet for educational purposes. The study by Qasem and Viswanathappa (11 vol.) further supports the idea that a positive perception of teachers towards integrating ICT aids in the rapid advancement of technology and teaching. Ahmadi (115-125), Ryn (99-119), and De Villa (44-154) also emphasized that the use of technology indicates an improvement in students' language learning skills.

Motivation in teaching and digital readiness are closely related because the preparation of students for online classes and the methods of using technological tools have become significant. Today, technology is among students' most important sources of knowledge, through cell phones, laptops, computers, and projectors. Research shows that technology helps in finding the information sought. In short, technology aids people by speeding up various tasks in daily life, as noted in the 1989 Filipino Language Dictionary, which was referenced in Albano's study.

A study on digital readiness found that less than 1% of students had no access to a personal computer, and self-reported skills in using digital tools, as well as behaviors related to information sharing, were at a moderate level. However, according to the journal by Beaunoyer et al. (106424) and Turkoglu (765-772), university administrators should be aware that a rapid shift to digital learning may result in digital inequality.

On the other hand, teachers serve as one of the most important elements of our educational system, motivating teaching the Filipino subject to make it beneficial for students (Comighud et al. 1-15). Teachers are encouraged to perform their duties, and in addition, they aim to achieve positive evaluation results to contribute to a better school organization and administration in education. The study also revealed that the three motivating factors have a

*

72 direct positive relationship with the level of teacher motivation, indicating that health and
73 safety yield the highest emphasis on the level of teacher instruction (Revilla et al. 96-108).
74 The study by Salayo (74-95) demonstrated that the participants remained buoyant and
75 resilient in facing the academic challenges brought about by the sudden shift in learning
76 modalities due to the COVID-19 pandemic.
77
78 The most important theory regarding motivation in teaching is based on the Self-
79 Determination Theory (SDT) by Deci and Ryan (1985). According to this theory, a teacher's
80 motivation is divided into two main categories: Intrinsic and Extrinsic. This is supported by
81 Porter and Lawler's model (1968), Vroom's theory (1964), and other expectancy-valence
82 formulations, which propose an intrinsic and extrinsic work motivation model. This theory
83 focuses on how an individual's motivation depends on their expectations of the outcomes of
84 their actions.
85 One of the supporting theories is the Goal-Setting Theory, which emphasizes the importance
86 of goal-setting in enhancing motivation and performance. Educators who set specific,
87 challenging goals for their teaching practices will likely be more motivated and effective in
88 their professional roles (Locke et al. 103-116). The third theory is Maslow's Hierarchy of
89 Needs, which supports and suggests that individuals are driven by a hierarchy ranging from
90 basic physiological needs to self-actualization. Teachers who have their basic needs met are
91 more likely to experience higher motivations, such as self-fulfillment and personal growth in
92 their teaching careers (Maslow 10-30).
93
94 Zou et al. (272-286) demonstrated and agreed that teachers' and students' intrinsic
95 motivation for teaching are significant contributors to effective teaching and learning. The
96 results showed that teachers' intrinsic motivation for teaching is significantly positively
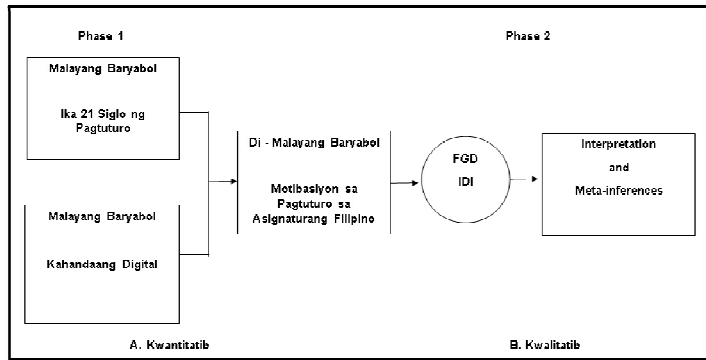97 related to students' intrinsic motivation for learning.
98
99 This is also based on the Technology Acceptance Model (TAM) (Davis, 1989), which
100 pertains to 21st-century teaching with two factors determining whether potential users will
101 accept a computer system: (1) perceived usefulness and (2) perceived ease of use. The
102 main feature of this model is its emphasis on the perspectives of potential users. This model
103 asserts that using technology in teaching is effective if the teacher believes it is helpful to
104 their students.
105 TPACK stands for Technological, Pedagogical, and Content Knowledge. This framework
106 examines the interplay of three grouped components: Content Knowledge (CK), Pedagogy
107 (PK), and Technology (TK), and explores ways in which these areas intersect. While it is
108 often compared to SAMR, these are relatively different models, with TPACK offering a less
109 linear approach to thinking about the integration of technology into teaching (Mishra 1017-
110 1054).
111 The study's findings indicated that TPACK is an important tool for assessing teachers'
112 knowledge in technology integration, with teachers' ICT knowledge being above average in
113 both groups and a significant difference noted between the experimental and control groups
114 on the ICT knowledge scale. Recommendations were made for future research on online
115 collaboration activities to raise awareness of factors related to online group work, determine
116 the in-service training needs of teachers in utilizing ICT for follow-up support, and ensure the
117 successful use of new technologies (Alberta 44-59).
118
119 In the diagram, the relationship between 21st century teaching, digital readiness,and
120 motivation in teaching Filipino can be seen.

*

Phase 1   Phase 2

Malayang Baryabol

Ika 21 Siglo ng
Pagtuturo

Di - Malayang Baryabol

FGD
IDI

Interpretation
and
Meta-inferences

Malayang Baryabol

Kahandaang Digital

Motibasiyon sa
Pagtuturo sa
Asignaturang Filipino

A. Kwantitatib   B. Kwalitatib

121

Figure 1. Conceptual Model Showing the Direct Relationship of Latent Exogenous
Variables.

However, this study examined the relationship between the free variables of 21st-century teaching and digital readiness, alongside the non-free motivation variable in teaching Filipino among senior high school teachers, under phase one of quantitative research. 21st-century teaching is assessed through indicators such as technical literacy, digital citizenship, planning and managing blended activities and assessments, personalizing instruction, and facilitating interactions between teachers and students and between students and content. Digital readiness is evaluated based on indicators including digital tool application, the use of digital applications, and awareness of digital media, information retrieval skills, and information-sharing behavior. Lastly, motivation in teaching is measured through indicators of personal efficacy (context), personal competence (general), effort, teaching excellence, and the effectiveness of outcomes. Under phase two are the focus group discussions (FGDs) and in-depth interviews (IDIs), qualitative research methods that facilitate a rich, nuanced understanding of participants' experiences and perspectives. When conducting these methods, gathering comprehensive data that captures the complexity of the participants' views is crucial. After collecting the information, careful interpretation of the findings is essential to identify key themes and patterns. This interpretation allows researchers to draw meta-inferences, which involve synthesizing insights across multiple data sources to uncover overarching trends and insights. By integrating the responses from FGDs and IDIs, researchers can develop a holistic understanding of the subject matter, ultimately enriching the research findings and contributing to informed decision-making or policy development.
This research aims to determine the level of 21st-century teaching based on the indicators of technical literacy, digital citizenship, planning and managing blended activities and assessments, personalizing instruction, and facilitating interactions between teachers and students and between students and content. To measure the level of knowledge in digital readiness for learning among senior high school teachers through digital tool application, the use of digital applications, awareness of digital media, skills in information retrieval, and behavior in information sharing. To ascertain the level of knowledge on teacher motivation in high school teaching through personal efficacy: context, personal competence, general effort, teaching competence, and the effectiveness of the outcome. To identify the significant relationship between 21st-century teaching, digital readiness, and motivation in teaching the Filipino. What are teachers' experiences in 21st-century teaching and digital readiness that shape their perspectives and beliefs regarding motivation in teaching the Filipino subject? Moreover, how can the qualitative data be validated against the results of quantitative data? Although there have been studies mentioned and to the researcher's knowledge, there have not been many local studies conducted to determine whether there is a relationship between 21st-century teaching, digital readiness, and motivation in teaching the Filipino. Thus, the

*

161 researchers were encouraged to conduct a study to help raise awareness about the various
162 motivations in teaching Filipino among senior high school teachers, achieve the goal of
163 providing quality and high-level education, and enhance the outcomes of its academic
164 programs. Accordingly, this study aims to address the mentioned gaps.
165 Enhancing teacher motivation and professional development is essential for improving
166 teacher performance, especially in vocational education. Studies show that professional
167 development enhances skills and recognizes teachers with a high level of competence
168 (Tonga et al. 88-104; Zeng 1-6). This study is important worldwide as it will serve as a
169 foundation for future research on motivation in teaching Filipinos. The leadership of Region
170 XII and the teachers significantly contribute to creating programs that develop teachers'
171 motivation to teach Filipino and inspire and spark students' interest in learning Filipino with
172 the help of technology.
173
174 Through this study, students will be helped to better understand themselves, especially in
175 terms of motivation to teach Filipinos through technology. The leadership of the Department
176 of Education of Region XII should implement methods or training to assist Filipino teachers
177 in motivating students to learn through the help of technology. The 21st-century teaching
178 emphasizes the integration of digital tools and critical thinking to prepare students for a
179 rapidly changing world. Filipino high school teachers in the community recognize the need
180 for digital readiness to enhance engagement and learning outcomes despite challenges like
181 limited resources and access. Motivation remains key, as teachers actively inspire students
182 to embrace technology and adapt to new learning methods for future success.
183
184 Through this, students will develop an interest in learning Filipino as our national language.
185 Other researchers related to this type of study could use the results of this study as a basis
186 for their ongoing research.
187
188
189 ## 2. MATERIAL AND METHODS
190
191 ### 2.1. Research Design
192
193 This research used a mixed-method model focusing on explanatory sequential design. In
194 this model, the researcher combined quantitative and qualitative data to analyze the
195 research problem (Creswell, 2013) comprehensively. A mixed-methods study would benefit
196 this research as it utilizes the strengths of both quantitative and qualitative approaches to
197 support the research questions. The quantitative and qualitative methods should be
198 complementary approaches that, when integrated, offer broader options for investigating a
199 range of important educational topics.
200
201 The results will be analyzed, and then the findings will be developed and explained in more
202 detail using qualitative research. This is considered explanatory because the initial results
203 from the quantitative data are further explained alongside qualitative data. Both data types
204 will be collected, analyzed, compared, and interpreted (Gay &Airasian, 2003, p. 20). The
205 researcher used a structured questionnaire for the quantitative part and interview guide
206 questions for the qualitative part during interviews with the participants. The use of interview
207 guide questions ensures consistency in the questions posed to all interviewees.
208 Furthermore, this instrument is essential to ensure that no important points are forgotten
209 during the interviews conducted by the researcher.
210
211 The research process comprised two distinct stages for collecting, analyzing, and
212 interpreting data. In the first stage, the researcher obtained permission from five secondary
213 schools in Region XII to conduct the study, administered survey questionnaires, and

*

214 collected responses. The necessary information and instructions were provided with the
215 questionnaires, and data collection and tabulation followed the receipt of all responses.
216 Outlier effects were addressed through data scrubbing, and the cleaned data was sent to a
217 statistician for analysis.
218 In the second stage, the researcher focused on the experiences of teachers who graduated
219 with a Bachelor of Secondary Education (BSED) in Filipino. Thematic analysis was
220 employed to analyze interview responses, allowing for interpretation of key themes. The
221 researcher reviewed interview transcripts multiple times to capture the participants' thoughts,
222 perceptions, and emotions, highlighting significant statements about their experiences in
223 teaching the Filipino subject using blended modality.
224
225 Throughout the study, the researcher adhered to ethical standards concerning voluntary
226 participation, confidentiality, informed consent, and various ethical practices to ensure the
227 integrity of the research.
228
229 The researcher adhered to and followed the ethical standards of this study, such as
230 voluntary participation, privacy and confidentiality, informed consent process, recruitment,
231 risks, benefits, plagiarism, fabrication, falsification, conflict of interest (COI), deceit,
232 observation, technology issues, focus group participants' identification, permission from
233 organization/location, and authorship.
234
235 For a broader and more meaningful interpretation and study of the data, the researcher
236 utilized the following statistics: Mean, Pearson correlation coefficient (r), Regression, and
237 Thematic Analysis. The researcher also employed Key Informant Interviews (KII) to gather
238 data for this study. Before conducting the interviews with the participants, the researcher
239 presented a consent letter informing them of the research's purpose. They had to sign this
240 consent form as proof of their agreement to participate in the interview. Furthermore, the
241 researcher explained that all information they obtained would remain confidential, especially
242 their identities.
243
244 On the interview day, participants were allowed to ask questions and seek clarification on
245 the researcher's inquiries. Subsequently, the researcher ensured that the participants'
246 responses were accurately recorded through audio recording to maintain the validity and
247 appropriateness of the responses noted. Participants were also allowed to add to or modify
248 their answers. After recording the participants' responses, they signed the transcript as proof
249 of their agreement with what the researcher recorded. Finally, after interviewing all
250 participants, the researcher transcribed the recorded interviews.
251
252
253 **2.2. Research Respondents**
254
255 The respondents of this study are 400 senior high school teachers from various secondary
256 schools in Region 12 who officially teach the subject of Filipino during the Academic Year
257 2023-2024. They come from the School Division Offices of Tacurong City, General Santos
258 City, Sarangani, and Koronadal City. To determine the 400 participants, the researcher
259 followed the rules and advice of Parsons, 1-11, and utilized stratified random sampling. Only
260 teachers officially teaching in senior high school were included in the stratified sampling
261 technique. Regarding the number of participants, there are several arguments from experts.
262 Ismael (5) explained that there should be 400 participants to establish a connection. This
263 sample size is generally sufficient to identify significant differences or trends, especially in
264 large populations and moderate effects. This scope provides a 95% level of confidence and
265 a 5% margin of error, which is considered the standard in most studies. This means there is
266 a 95% probability that the results are correct and accurate, and the error does not exceed

*

267 5% from the actual value (Hsu 1-15; Cramer et al., 633-647; Krejcie 607-610). According to
268 Frankel et al. (429), the minimum acceptable sample size is 400, and any sample size below
269 this may result in inaccurate results or misinterpretation of the data.
270
271 The respondents' participation in the research study was approved by Region XII and
272 involved five divisions. Participation was voluntary, with teachers required to attend an
273 orientation to understand the information needed. Primary participants included teachers
274 with five or more years of experience teaching Filipino, permitted by school administrators in
275 Region XII. Teachers absent during data collection could still participate; however, those
276 who do not teach Filipino or have less than five years of experience were excluded from the
277 study.
278
279 The study focuses on teachers with five or more years of experience teaching Filipino in
280 public secondary schools within Region XII. Only these teachers, approved by school
281 administrators, will serve as primary participants. Those not present during the data
282 collection can still participate, while teachers who do not teach Filipino or have less than five
283 years of experience will be excluded. Participation is voluntary, allowing teachers to
284 withdraw without penalties and retaining their rights and benefits.
285

286 The qualitative section will include demographic information, using pseudonyms to ensure
287 confidentiality. A total of 15 participants will be involved: 10 will undergo in-depth interviews
288 (IDI), and five will participate in a focused group discussion (FGD). Participants were
289 selected through purposive sampling to ensure they possess relevant experience relevant to
290 the study's objectives. This research was conducted in various cities within Region XII.
291
292 **2.3. Research Instrument**
293
294 This study utilized downloaded questionnaires from web sources. The instrument used to
295 analyze 21st-century teaching competencies was adapted from "Teachers' Competencies in
296 Educational Technology Integration on Instructional Methodologies in the New Normal" by
297 Jayson L. De Vera of the Philippine Normal University. It includes indicators such as
298 technical literacy, digital citizenship, dispositions, planning blended tasks, planning blended
299 assessments, personalizing instruction, managing teacher-student interactions, managing
300 student-content interactions, implementing blended assessments, reflection and evaluation,
301 managing blended learning environments, and managing blended learning activities,
302 comprising a total of sixty-five (65) questions.
303 The instrument to analyze digital readiness was adapted from "Digital Readiness, Academic
304 Motivation, and Learning Strategies: A Structural Approach to Motivation in Writing
305 Performance of Freshmen College Students." It aims to measure the level of knowledge in
306 digital tool applications, digital usage, awareness of digital media, information retrieval skills,
307 and information-sharing behavior. Modifications were made to the items to tailor them to the
308 present study, with indicators such as digital tool applications, digital application usage,
309 awareness of digital media, information retrieval skills, and information-sharing behavior,
310 totaling seventeen (17) questions. The responses for each item related to digital knowledge
311 were measured using descriptive equivalents and interpretations.
312 The third part focuses on the motivation for teaching the Filipino subject, derived from an
313 instrument adapted from "Teachers' Motivation for Teaching in Higher Education:
314 Portuguese Validation of a Questionnaire." This instrument consists of six sections
315 comprising twenty-three (23) questions with indicators such as personal relevance, context,
316 personal excellence, general effort, teaching, and outcome effectiveness. The responses for
317 each item related to motivation for teaching Filipino will utilize specific measurement scales,
318 descriptive equivalents, and interpretations.

*

319
320 The three questionnaires used a 5-point Likert Scale; the range of means starts from 1.00 to
321 5.00, with levels from lowest to highest and corresponding interpretations for each number.
322 The mean range of 1.00-1.79 corresponds to the lowest level with an interpretation of "never
323 demonstrated," 1.80-2.59 as low, 2.60-3.39 as moderate, 3.40-4.19 as high, and 4.20-5.00
324 as the highest. All mentioned questions and descriptive scales underwent rigorous validation
325 by a panel of six (6) qualified experts, achieving an average score of 4.5.
326
327 The researcher conducted a pilot test to assess the effectiveness of the instruments. The
328 distribution of the instruments was followed by the analysis of the Cronbach Alpha from the
329 pilot testing. The 21st-century teaching competencies had a Cronbach Alpha on
330 standardized items of .97, digital readiness was .95, and motivation for teaching the Filipino
331 subject had a reliability statistic result of .95. Overall, the pilot testing received a Cronbach
332 Alpha of 0.90 – 1.00, indicating excellent internal consistency. The researcher coordinated
333 with each school's program heads or coordinators to facilitate data distribution and
334 collection. The researcher created a group chat to streamline and economize the data
335 gathering and collection
336

337 **3. RESULTS AND DISCUSSION**
338
339 **3.1. 21st Century Teaching of Teachers in Senior High School**

340 Table 1 illustrates that the Level of 21st-century Teaching among Senior High School
341 teachers has a standard deviation of 0.61 and an impressive mean score of 4.17. This
342 indicates a descriptive level categorized as 'high,' signifying that the principles of 21st-
343 century teaching are frequently exhibited and effectively managed through meaningful
344 pedagogical approaches that incorporate modern technology.
345
346 **Table 1.Levels of 21st Century Teaching**
347

Indicators	SD	Mean	Descriptive Level
Technical Literacy	0.67	4.02	High
Digital Citizenship	0.61	4.36	Highest
Disposition	0.56	4.41	Highest
Planning Blended Activities	0.64	4.24	Highest
Planning Blended Assessment	0.65	4.22	Highest
Personalizing Instructions	0.68	4.12	High
Managing Student Interaction	0.74	4.11	High
Managed the Teacher-Student Interaction	0.68	4.18	High
Manage the Student-Knowledge Interaction	0.75	4.11	High
Implementation of Blended Assessment	0.72	4.12	High

*

Analysis and Reflection	0.73	4.12	High
Management of Blended Learning Context	0.76	4.09	High
Management of Blended Learning Activities	0.76	4.12	High
Total	**0.61**	**4.17**	**High**

348
349 The study highlights key indicators of effective blended learning, showing high mean scores
350 and varying standard deviations. Notable indicators include **Dispositions** (4.41, SD: 0.56),
351 indicating effective blended teaching in Filipino instruction; **Digital Citizenship** (4.36, SD:
352 0.61), reflecting teachers' skills in online knowledge sharing; and **Planning of Blended
353 Assessment** (4.24, SD: 0.64), which signifies the efficiency and accessibility of online
354 assessments. Additionally, **Planning of Blended Activities** (4.22, SD: 0.65) enhances
355 online and personal skills, while **Managed Interactions between Teacher and Student**
356 (4.18, SD: 0.68) reveals improved communication via online platforms. Other important
357 indicators include **Management of Blended Learning Activities** (4.12, SD: 0.76) and
358 **Evaluation and Remediation** (4.12, SD: 0.73), emphasizing varied assessment methods.
359 With scores of 4.11, additional indicators related to managed student interactions showcase
360 opportunities for collaborative learning. Finally, the **Managed Blended Learning
361 Environment** (4.09, SD: 0.76) and **Technical Literacy** (4.02, SD: 0.67) highlight the
362 ongoing integration of technology in education, reinforcing their positive impact on student
363 development. Overall, the analysis demonstrates the effective implementation of blended
364 learning strategies and educators' dedication to enhancing student engagement and
365 achievement.
366
367 This finding is supported by the studies conducted by Purba (1486-1497), Esman (46-62),
368 and Del Mundo (2643-9876), which collectively reveal that senior high school teachers
369 exhibit high proficiency in 21st-century digital skills and technology integration. Furthermore,
370 Despojo (316) corroborates this assertion in his research, indicating that senior high school
371 teachers demonstrate advanced competencies in 21st-century skills, media literacy, and
372 digital literacy, as well as essential life and professional skills. This underscores the
373 teachers' readiness to effectively engage in modern educational practices and prepare
374 students for a rapidly evolving digital landscape.
375
376 A study by Nguyen et al. (2023) found that despite the importance of digital readiness for
377 learning, the overwhelming amount of digital tools and platforms teachers are expected to
378 master can lead to digital overload. Teachers who were not given enough training or time to
379 adapt to these technologies reported feeling stressed, negatively affecting their motivation.
380 The study concluded that the rapid integration of digital technologies without proper support
381 could overwhelm teachers and hinder their motivation to effectively engage in the teaching
382 process.
383
384 **3.2.Digital Readiness of Senior High School Teacher**
385
386 Table 2 reveals that the level of knowledge concerning digital readiness for learning among
387 senior high school teachers is characterized by a total standard deviation of 0.75 and a
388 mean score of 4.08, categorizing it within the descriptive level of "high." This finding signifies
389 a robust foundation of knowledge and a strong consensus among educators regarding
390 integrating technology in teaching and learning. The high mean score reflects the educators'
391 confidence and proficiency in utilizing digital tools to enhance instructional effectiveness and
392 student engagement.
393

*

394 **Table 2.Levels of Digital Readiness**
395

Indicators	SD	Mean	Descriptive Level
Digital Tool Application	0.88	3.91	High
Use of Digital Applications	0.76	4.29	Highest
Awareness of Digital Media	0.87	4.02	High
Information Retrieval Skills	0.81	4.06	High
Information-sharing Behavior	0.78	4.13	High
Total	0.75	4.08	**High**

396
397
398 The indicator for the use of digital applications has a standard deviation of 0.76 and a mean
399 score of 4.29, indicating that teachers in senior high school possess a very high level of
400 knowledge due to seminars, workshops, and other activities that help them develop their
401 skills using modern technology. The indicator for the behavior of sharing information
402 received a high response from the participants, with a standard deviation of 0.78 and a mean
403 score of 4.13. This means that teachers have a high level of knowledge in using modern
404 technology, regardless of their age, as skills are acquired and utilized in teaching due to their
405 consistent participation in training programs intended for such skills.
406
407 The skill in information searching has a standard deviation of 0.81 and a mean score of 4.06,
408 and awareness of digital media has a standard deviation of 0.87 and a mean score of 4.02.
409 In contrast, using digital tool applications has a standard deviation of 0.88 and a mean score
410 of 3.91. All of these indicators show a high tendency for integrating technology in teaching
411 and learning, considering that there are times when teachers face challenges and exert
412 personal effort to share knowledge with students and make daily lessons meaningful.
413
414 According to the research conducted by Anh (3), Rahmania (95-104), and Porque (60-76),
415 senior high school teachers exhibit a high level of digital readiness. The findings reveal that
416 English teachers have successfully equipped themselves with robust skills in both pedagogy
417 and technology. However, as the landscape of modern, rapidly evolving technology presents
418 new challenges, it is essential for educators to continually refine and enhance their
419 technological competencies to engage and educate their students effectively. This ongoing
420 pursuit of professional development is crucial in navigating the complexities of integrating
421 technology into teaching practices and ensuring educators remain adaptable in an ever-
422 changing digital environment.
423

424 **3.3. Teacher Motivation in Senior High School**

425 Table 3 illustrates that the level of knowledge regarding motivation among senior high school
426 teachers is characterized by a standard deviation of 0.58 and an overall mean score of 4.32.
427 This score falls within the 'very high' descriptive level, signifying that these educators
428 consistently exhibit a strong motivation in teaching the Filipino subject.
429
430 **Table 3. Level of Knowledge on Teacher Motivation in Senior High School**
431

*

Indicators	SD	Mean	Descriptive Level
Personal Efficacy: Context	0.75	4.18	High
Personal Efficacy: General	0.59	4.36	Highest
Effort	0.60	4.51	Highest
Teaching Efficacy	0.73	4.23	Highest
Outcome Efficacy	0.69	4.32	Highest
Total	**0.58**	**4.32**	**Highest**

The indicator of effort reveals a standard deviation of 0.60 and a mean score of 4.51, suggesting that teachers consistently strive to make daily discussions engaging and impactful, enhancing their effectiveness as educators for their students. In examining the indicator of personal excellence, the overall standard deviation is 0.59, accompanied by a mean score of 4.36. The effectiveness of outcomes, measured by a standard deviation of 0.69 and a mean score of 4.32, highlights the positive impact of their efforts.

Additionally, the indicator for teaching excellence shows a standard deviation of 0.73 with a mean score of 4.23. At the same time, the personal relevance context displays a standard deviation of 0.75 and a mean score of 4.18. Collectively, these findings provide strong evidence that the participants exhibit exceptionally high levels of self-motivation. They recognize it as their sworn duty to commit wholeheartedly to the growth and development of their students, thereby ensuring that their teaching remains meaningful and transformative in their daily lives.

Research conducted by Onyefulu (37-65), Halimahturrafiah (362-369), and Gautam (1-56) reveals that the majority of teachers possess a strong knowledge base and skill set in utilizing ICT tools, including computers, laptops, mobile phones, multimedia applications, social media platforms, social networking, and mobile-assisted language learning technologies. The integration of ICT in English Language Teaching (ELT) has significantly enriched the teaching and learning experience, enabling educators to master new technologies, refining their technical competencies, and enhancing the overall quality of the instructional process. This transition from traditional pedagogical methods to modern approaches has fostered a more engaging learning environment. Additionally, workplace motivation is critical in influencing teacher performance, as evidence suggests that increased job motivation correlates positively with improved performance among public school teachers in senior high schools.

3.4. Significant Relationship between 21st Century Teaching and Knowledge on Teacher Motivation in Senior High School

Table 4.1 shows a significant relationship between 21st Century Teaching and Knowledge in Motivating Senior High School Teachers, with an r-value of .725 and a probability value of .000, much lower than the .05 level of significance set in this study. Therefore, the null hypothesis is rejected, and the alternative hypothesis is supported by the fact that there is a significant relationship between 21st Century Teaching and Knowledge in Motivating Senior High School Teachers.

*

471 This table's results indicate a significant connection between the 21st Century Teaching of
472 teachers and the Motivation of Senior High School Teachers. This means that when
473 teachers' 21st Century Teaching skills are high, their knowledge and motivation are also
474 high. This implies that 21st Century Teaching plays an important role in teachers' ability to
475 understand motivation in teaching, particularly regarding all the indicators of 21st-century
476 teaching. A teacher's success in teaching is significantly related to how well they can engage
477 students in learning. Research has shown that in 21st Century Teaching, to avoid student
478 boredom and lack of interest or motivation, teachers should effectively plan and manage
479 blended learning activities.

480 On the other hand, the study by Koh et al. (2020) showed that the rapid pace of
481 technological advancements and the increasing expectation for teachers to use digital tools
482 can lead to technological overload. This overload occurs when teachers are required to learn
483 and manage multiple digital platforms and tools without sufficient training or time for
484 adaptation. The study noted that teachers, especially those with less experience in digital
485 technology, may feel inadequate and frustrated, which negatively impacts their motivation to
486 teach effectively.

487
488 **Table 4.1 Significant Relationship between 21st Century Teaching and Knowledge on**
489 **Teacher Motivation**
490

21st Century Teaching	Knowledge of Motivation					
	Personal Efficacy: Context	Personal Efficacy: General	Effort	Teaching Efficacy	Outcome Efficacy	**Total**
Technical Literacy	.578[**]	.551[**]	.428[**]	.454[**]	.487[**]	**.577[**]**
	.000	.000	.000	.000	.000	**.000**
Digital Citizenship	.543[**]	.553[**]	.479[**]	.450[**]	.475[**]	**.575[**]**
	.000	.000	.000	.000	.000	**.000**
Disposition	.500[**]	.574[**]	.521[**]	.506[**]	.562[**]	**.611[**]**
	.000	.000	.000	.000	.000	**.000**
Planning Blended Activities	.579[**]	.616[**]	.535[**]	.496[**]	.545[**]	**.636[**]**
	.000	.000	.000	.000	.000	**.000**
Planning Blended Assessment	.588[**]	.625[**]	.522[**]	.513[**]	.569[**]	**.647[**]**
	.000	.000	.000	.000	.000	**.000**
Personalizing Instructions	.602[**]	.619[**]	.491[**]	.544[**]	.582[**]	**.654[**]**
	.000	.000	.000	.000	.000	**.000**
Managing Student Interaction	.615[**]	.601[**]	.495[**]	.493[**]	.544[**]	**.633[**]**
	.000	.000	.000	.000	.000	**.000**
Managed the Teacher-Student Interaction	.599[**]	.634[**]	.527[**]	.512[**]	.575[**]	**.655[**]**
	.000	.000	.000	.000	.000	**.000**
Manage the Student-Knowledge Interaction	.582[**]	.589[**]	.455[**]	.511[**]	.553[**]	**.621[**]**
	.000	.000	.000	.000	.000	**.000**

*

Implementation of Blended Assessment	.623[**]	.617[**]	.511[**]	.549[**]	.591[**]	**.667[**]**
	.000	.000	.000	.000	.000	**.000**
Analysis and Reflection	.642[**]	.643[**]	.532[**]	.540[**]	.617[**]	**.685[**]**
	.000	.000	.000	.000	.000	**.000**
Management of Blended Learning Context	.628[**]	.625[**]	.517[**]	.538[**]	.596[**]	**.669[**]**
	.000	.000	.000	.000	.000	**.000**
Management of Blended Learning Activities	.637[**]	.651[**]	.553[**]	.575[**]	.618[**]	**.699[**]**
	.000	.000	.000	.000	.000	**.000**
Total	**.673[**]**	**.687[**]**	**.570[**]**	**.582[**]**	**.637[**]**	**.725[**]**
	.000	**.000**	**.000**	**.000**	**.000**	**.000**

491

On the other hand, the study by Koh et al. (2020) showed that the rapid pace of technological advancements and the increasing expectation for teachers to use digital tools can lead to technological overload. This overload occurs when teachers must learn and manage multiple digital platforms and tools without sufficient training or time for adaptation. The study noted that teachers, especially those with less experience in digital technology, may feel inadequate and frustrated, negatively impacting their motivation to teach effectively. According to the study by Dewaele et al. (922-945), allowing students to select tasks encourages them to express their knowledge and abilities more authentically. This notion is further reinforced by Lumpkin (32-43), who asserts that establishing a strong interaction with tasks and effectively managing these interactions leads to organized, straightforward, meaningful, and highly efficient teaching. Such an approach significantly enhances self-confidence in students and teachers, as it offers clear direction in teaching and learning. Furthermore, teachers benefit from increased engagement and experience smoother, more systematic instruction. In 21st-century education, this methodology is innovative and resourceful, ensuring that professors and students have a well-defined roadmap for successful teaching and learning experiences.

In contrast to the study of Seo (85-105), according to his study, academic circles have expressed concerns about the potential negative impact of digital technology on classroom dynamics and fundamental academic skills, such as reading ability. As digital education becomes increasingly prevalent, there is growing apprehension that Church education may struggle to keep pace with the rapidly evolving technological landscape.

3.5. Significant Relationship between Digital Readiness for Learning and Teachers' Motivation Knowledge in Senior High School

Table 4.2 illustrates a significant correlation between knowledge of digital readiness for learning and understanding teachers' motivation in Senior High School. The analysis yielded a correlation coefficient (r-value) of .647 and a probability value of .000, substantially lower than the predetermined significance level of .05 established for this study. Consequently, the null hypothesis is rejected in favor of the alternative hypothesis, which confirms a meaningful relationship between these two variables. This finding suggests that a more excellent proficiency in digital readiness is associated with an increased understanding of teachers' motivation in the Senior High School context.

*

Through comprehensive analysis, the study uncovers significant correlations between various digital readiness skills and the knowledge of teachers' motivation in Senior High School. Among the key findings, digital readiness for learning demonstrates a robust relationship (r-value of .647, p-value of .000), alongside noteworthy correlations with digital tool application skills (r-value of .539, a p-value of .000), information-sharing behavior (r-value of .631, p-value of .000), and information searching skills (r-value of .624, p-value of .000). Furthermore, both digital media awareness (r-value of .578, p-value of .000) and the effective use of digital tool applications (r-value of .575, p-value of .000) significantly contribute to enhancing teachers' motivation knowledge. Most strikingly, the analysis identifies personal ability—framed within the context of digital knowledge—as the most substantial correlating factor, boasting an r-value of .716 and a p-value of .000. At the same time, the weakest correlation is linked to effort, represented by an r-value of .451 and a p-value of .000. These findings suggest the critical role of digital readiness in fostering a motivated teaching environment in Senior High Schools.

Table 4.2 Significant Relationship between Digital Readiness for Learning and Teachers' Motivation Knowledge in Senior High School

Digital Readiness for Learning	Knowledge of Motivation					
	Personal Efficacy: Context	Personal Efficacy: General	Effort	Teaching Efficacy	Outcome Efficacy	Total
Digital Tool Application	.597**	.489**	.331**	.446**	.453**	**.539****
	.000	.000	.000	.000	.000	**.000**
Use of Digital Applications	.623**	.552**	.463**	.384**	.475**	**.575****
	.000	.000	.000	.000	.000	**.000**
Awareness of Digital Media	.674**	.557**	.406**	.408**	.450**	**.578****
	.000	.000	.000	.000	.000	**.000**
Information Retrieval Skills	.654**	.595**	.421**	.496**	.527**	**.624****
	.000	.000	.000	.000	.000	**.000**
Information-sharing Behavior	.713**	.581**	.442**	.465**	.520**	**.631****
	.000	.000	.000	.000	.000	**.000**
Total	**.716****	**.609****	**.451****	**.484****	**.532****	**.647****
	.000	**.000**	**.000**	**.000**	**.000**	**.000**

The study conducted by Porque et al., 60-76, highlights that integrating digital tool applications is one of the most crucial resources for educators and students in today's educational landscape. Utilizing devices such as smartphones, laptops, computers, and projectors, these tools allow users to search for and access information with remarkable ease. This contrasts sharply with earlier methods that necessitated physical books to find essential information—a process that was often time-consuming. Technology has significantly streamlined many daily tasks, enhancing efficiency for everyone involved.

*

Moreover, incorporating ICT applications and digital literacy within the classroom has fundamentally altered the roles of both students and teachers. It has also transformed the types of materials educators utilize and their pedagogical approaches. As a result, teachers face a wide array of responsibilities to ensure the successful implementation of these changes. This includes improving their knowledge and skills related to technology usage and fostering a deeper understanding and endorsement of effective teaching methods and curricular content (Tomczyk 471-486).

According to the study by Kang et al. (125-137), teachers are generally motivated to integrate digital technology into the classroom and hold a positive perspective on its potential benefits. However, the study highlights that many teachers require additional support and training to effectively feel more comfortable and confident using these digital tools. Furthermore, the research suggests that teachers should prioritize developing self-regulation skills to manage and optimize the use of digital technology in their teaching practices, ensuring that it enhances learning outcomes while aligning with their pedagogical goals.

3.6. Significant Influence of 21st Century Teaching and Digital Readiness for Learning on Teachers' Motivation in Senior High School

Table 5 highlights the significant influence of 21st Century Teaching and Digital Readiness for Learning on Teachers' Motivation in Senior High School. The statistical findings highlight the significant factors influencing teacher motivation, particularly 21st Century Teaching and Digital Readiness for Learning. The strong positive relationship between 21st Century Teaching (β = .574, p = .000) and teacher motivation suggests that teachers are more motivated to teach when they are equipped with modern pedagogical methods. To capitalize on this, schools should provide ongoing professional development that introduces innovative teaching strategies and encourages collaboration among educators to share best practices. Additionally, the positive link between Digital Readiness for Learning (β = .189, p = .001) and motivation indicates that teachers who feel prepared to use digital tools are more motivated in their roles. Therefore, schools should offer continuous training on digital technologies and ensure teachers have access to resources and support for effectively integrating technology into their classrooms. The overall model explains 53.9% of the variance in motivation (R^2 = .539), emphasizing the importance of teaching methods and digital readiness in fostering motivated teachers. Practical strategies should include creating a supportive environment where teachers can set personal development goals, receive constructive feedback, and experiment with new tools and teaching methods. Regular recognition and mentoring can further boost teacher confidence, enhancing motivation and a more engaging classroom experience for students.

In summary, the influence of 21st Century Teaching and Digital Learning Preparation significantly affects Teachers' Motivation in Senior High School. This finding indicates that the exogenous variables contribute meaningfully to our understanding of what motivates teachers at this educational level. The results underscore the importance of integrating modern teaching methodologies and digital resources, as they are crucial factors in enhancing teacher motivation and, ultimately, the educational experience. One of the most daunting challenges teachers face is motivating their students to engage in their studies. This understanding is crucial because unmotivated students struggle to learn effectively.

Table 5. Significant Influence of 21st Century Teaching and Digital Readiness for Learning on Teachers' Motivation in Senior High School

*

Knowledge of Motivation

Variables		B	β	t	Sig.
Constant		1.434		10.472	.000
21st Century Teaching		.547	.574	10.194	.000
Digital Readiness for Learning		.148	.189	3.361	.001

R	.734
R^2	.539
ΔR	.536
F	231.833
ρ	.000

605

606 One of the most daunting challenges teachers face is figuring out how to motivate their
607 students to engage in their studies. This understanding is crucial because unmotivated
608 students struggle to learn effectively.

609 Moreover, they often fail to retain information, are less likely to participate actively, and some
610 may even disrupt the learning environment (Reeve and Shin 150-161). Ahmadi (115-125)
611 emphasizes that motivation is the driving force behind people's decision to engage in an
612 activity, whether they will persist, the perceived difficulty of the task, and how long they are
613 committed to it. Motivation propels you forward and defines the direction you wish to take.
614 This dynamic underscores the pivotal role studentsstudents play in their learning and in
615 achieving academic success.
616 The data gathered from interviews and focus group discussions underwent comprehensive
617 analysis. Following this analysis, several themes emerged, each accompanied by specific
618 categories and indicators that offer valuable insights into the experiences and perspectives
619 of teachers instructing Filipino subjects in senior high schools within Region 12.
620
621 The organized responses revealed the following key themes: the integration of Information
622 and Communication Technology (ICT) enhances student engagement; ICT streamlines the
623 teaching and learning processes, and being a "technologically savvy" teacher is a significant
624 advantage in the educational landscape. These findings highlight the importance of
625 embracing modern teaching tools and strategies to foster a more engaging and effective
626 learning environment.
627

*

628 The Themes of Teachers' Experiences in 21st Century Teaching and Digital Readiness that
629 Shaped Their Perspectives and Beliefs Regarding Motivation in Teaching the Filipino
630 Subject.
631
632 **Table 6** Themes of Teachers' Experiences and Core Ideas
633

Themes	Core Ideas
The use of ICT improves students engagement.	Our students are motivated when there is ICT or activities like IDI R1
	The youth are more engaged, as they compete to answer using the buttons on their laptops and phones."IDI R2
	The use of these online platforms will make children more engaged. R10
	The child's excitement is on the 21st century teaching and teacher's motivation During the class, they enjoy the class. using technology. IDI R3
	Children are more active. T2 FGD
	More participation in the The reason for this is that they are easy to gets. T3 FGD
ICT aids convenient teaching and learning process	Like apps, tools make teaching easier. Like the song, I'm not into music. You've seen and heard the lesson Music is easier to understand. IDI R4
	It is easy to teach children, especially when you have activities DI R5
	use smart TVs, powerpoints, cellphones, vidoes faster learning R6
	Our teaching is easier.. R7
	They are more likely to do tasks with technology involved IDI R2
	The activities of teachers in the field of teaching are facilitated.T1 FGD
Becoming a technological savvy teacher is an edge	It's easy because they can access thru links that I'll send my knowledge to my digital like google forms so I'll know how to maximize FGD1
	Digital readiness is helpful to our teacher especially if there are seminar trainings that we can use in teaching. FGD3
	My exposure and skills were taught through trainings, like the one conducted for digitalization, so I am also equipped FGD2
	"Google platforms, Schoology, links, and PowerPoint are examples of technologies in teaching, and they are effective ways to deliver the lesson accuratelyFGD1

634
635 3.7. How can the findings from qualitative data be validated to align with the
636   results from quantitative data?

637 In this study, the qualitative results align closely with the quantitative findings, which
638 demonstrate that the level of 21st-century teaching among senior high school teachers has a

*

Standard Deviation of 0.6 and a Mean of 4.17, categorized as high. Insights from interview participants further support this, most of whom emphasized that students exhibit greater engagement during ICT-based lessons and activities. Students eagerly compete to respond using their laptops and smartphones, and the utilization of these online platforms significantly boosts their involvement. A palpable excitement among students arises from 21st-century teaching methods, while teachers' motivation during class hours enhances the overall student experience through technology integration. As a result, students become increasingly active and participative, facilitating their comprehension of the subject matter. The following responses from teachers illustrate this point: IDI R1, IDI R2, IDI R10, IDI R3, FGD T2, and FGD T3.

Additionally, the qualitative results are in harmony with the quantitative data concerning the high level of digital preparedness for teaching among senior high school teachers, which shows a Standard Deviation of 0.75 and a Mean of 4.08, also categorized as high. Interview participants noted that accessing information has become more straightforward; they can receive links like Google Forms to enhance their understanding and resource maximization. Digital preparedness is particularly beneficial for teaching, especially when teachers participate in seminars and training that can be applied in the classroom. Exposure to various technologies—such as Google platforms, Schoology, links, and PowerPoint—equips teachers with the necessary skills to effectively convey subject matter. The responses from teachers support this observation: FGD T1, FGD T3, FGD T2, and FGD T1.

Furthermore, the qualitative findings align with the quantitative results regarding teacher motivation in senior high schools, which reveal a Standard Deviation of 0.58 and a Mean of 4.32, categorized as very high. Interview participants reaffirmed that tools and apps, including music resources, significantly streamline the teaching process. For instance, although I may not have a strong inclination toward music, the presentation of musical lessons was noted to enhance students' understanding. Incorporating smart TVs, PowerPoint presentations, smartphones, and videos accelerates learning and simplifies the teaching experience. Students are also more likely to complete tasks promptly when technology is integrated, easing the overall workload for educators. The following responses further illustrate this observation: IDI R4, IDI R5, IDI R6, IDI R7, IDI R2, and FGD T1.

4. CONCLUSION AND RECOMMENDATIONS

This section summarizes a study's findings, conclusions, and recommendations examining the relationship between 21st Century Teaching, Digital Readiness, and Teacher Motivation among Senior High School educators. The study reports high mean scores and low standard deviations for 21st-century Teaching (4.17), Digital Readiness (4.08), and Teaching Motivation (4.32), indicating strong teacher proficiency in using technology and a high level of motivation to teach. Interview participants confirmed the positive impact of digital tools like Google Forms and PowerPoint on their teaching practices.

Quantitative analyses reveal a significant correlation between teachers' knowledge of 21st-century Teaching and their motivation, with an r-value of .647 and a p-value of .000. This suggests that higher digital competency among teachers leads to increased motivation and readiness for Teaching. Additionally, 21st-century Teaching and Digital Readiness influence Teacher Motivation significantly, accounting for 54% of its variance.

The results align with the Technology Acceptance Model (TAM), indicating that teachers find technology helpful and easy to use. They also relate to TPACK theory, which evaluates content integration, pedagogy, and technology in Teaching. Teachers' ICT knowledge was reported to be above average, with recommendations for further research on online collaboration and in-service training for effective ICT use.

*

Moreover, findings support the Self-Determination Theory (SDT), which categorizes motivation as intrinsic and extrinsic and highlights the role of expected outcomes in motivating teachers. The study also emphasizes the importance of Goal-Setting Theory and Maslow's Hierarchy of Needs in understanding teacher motivation and personal development in the educational context.

While the study provides valuable insights into the relationships between technology use, teacher motivation, and ICT knowledge, several limitations must be considered. First, correlational studies cannot establish causality, so the findings do not prove that technology use causes increased motivation. Confounding factors like teachers' prior experience, school resources, and institutional support could also influence the results. The reliance on self-reported data introduces potential bias and the cross-sectional design limits understanding of changes over time. Additionally, the findings may not be generalizable if the sample is specific to certain regions or schools, and cultural differences or varying access to technology may not be fully accounted for. Lastly, the study may overlook other factors, such as personal satisfaction or external pressures that could also impact teacher motivation.

Based on the study's results, the researcher recommends the following: Teachers should strengthen their use of modern technology to enhance their technical literacy and provide more training on the effective use of digital tools. It is also essential to design activities and projects that connect technology to real-world applications to broaden the technical literacy skills of Senior High School teachers. Teachers should continue to expand their knowledge in digital readiness for learning and utilize modern technology to improve the quality of Teaching and learning for students. This can be achieved through regular training, workshops, and collaboration in sharing strategies. It is important to allocate resources, platforms, and mentorship to assist teachers using digital tools, resulting in students' more engaging, effective, and meaningful learning experiences.

Support for Senior High School teachers should continue through regular training and programs that enhance their contextual skills and motivation to teach. Platforms for sharing experiences and strategies should be established to help them grow their skills. This will strengthen their capacity to provide quality education and foster personal and professional growth. Senior High School teachers should continue to develop their skills in 21st-century teaching to increase student motivation. Regular training in blended learning and other technologies should be provided, activities aligned with student interests should be designed, and expert mentorship should be offered. They should promote collaborative learning and conduct evaluations and audits of the teaching system to improve methodologies.

Senior high school teachers must continue expanding their knowledge in 21st Century Teaching and Digital Readiness to enhance their motivation and teaching effectiveness. Regular training and workshops focused on modern technology and methodologies should be allocated while considering other factors influencing their motivation to ensure holistic development and higher-quality student education. Efforts should be continuously strengthened to train and support Senior High School teachers to maintain and enhance their skills in 21st Century Teaching, digital readiness for learning, and motivation. Regular workshops and seminars on modern technologies and teaching methodologies should be organized to improve their capabilities and sustain high levels of motivation and Effective Teaching. Furthermore, teachers need to pay close attention to aspects of personal and professional development to ensure ongoing improvement in education quality.

*

741   Ethical approval and consent:

742   In this study, the appropriate research guidelines are important to complete the conducted
743   research. It was submitted to the University of Mindanao Ethics Reviewer Committee
744   (UMERC). The necessary attachments for the submission of the questionnaire and forms
745   were well-organized, and ethical considerations regarding data confidentiality, consent, and
746   participant protection were taken into account for the conducted study. The review by the
747   researcher of the manuscript was based on the suggestions and recommendations of the
748   University of Mindanao Ethics Review Committee before a certificate was issued as UMERC
749   -2023-450.

*

791
792
793 **Reference**
794

795 1.Adam, Ibrahim. "Vygotsky's social constructivist's theory of learning." *Unpublished*
796 *Research Paper* (2017). 1-9

797 2. Adaeze, EzenwobodoChidimma. "The Impact Of Motivation On Senior Secondary School
798 Students' Interest In Biology In Onitsha North Local Government Area Of Anambra
799 State." (2024). 212-221
800

801 3. Aguilar-Mediavilla, Eva, et al. "Influence of qualifications in initial training on the
802 professional development and motivation of primary teachers in the Balearic
803 Islands." *European Journal of Teacher Education* 46.2 (2023): 308-330.
804

805 4. Ahmadi, M. R. 2018.The use of Technology in English Language Learning: A Literature
806 Review. International Journal of Research in English Education. 3(2): 115 - 125.
807

808 5. Albeta, Sri Wilda, et al. "TPACK-based blended learning as an implementation of
809 progressivism education: A systematic literature
810 review." *Jurnalpendidikanvokasi* 13.1 (2023): 44-59.
811

812 6. Alexander, Colette, Claire Wyatt-Smith, and Anna Du Plessis. "The role of motivations
813 and perceptions on the retention of inservice teachers." *Teaching and Teacher*
814 *Education* 96 (2020): 103186
815

816 7. Aliyyah, RusiRusmiati, et al. "The perceptions of primary school teachers of online
817 learning during the COVID-19 pandemic period: A case study in
818 Indonesia." *Journal of Ethnic and Cultural Studies* 7.2 (2020): 90-109.
819

820 8. Aldosemani, Tahani, Craig E. Shepherd, and Doris U. Bolliger. "Perceptions of
821 instructors teaching in Saudi blended learning environments." *TechTrends* 63.3
822 (2019): 341-352.
823

824 9. Aljehani, Sultan Bader. "Enhancing Student Learning Outcomes: The Interplay of
825 Technology Integration, Pedagogical Approaches, Learner Engagement, and
826 Leadership Support." *Educational Administration: Theory and Practice* 30.4 (2024):
827 418-437.
828

829 10. Almaiah, Mohammed Amin, et al. "Integrating teachers' TPACK levels and students'
830 learning motivation, technology innovativeness, and optimism in an IoT acceptance
831 model." *Electronics* 11.19 (2022): 3197.
832

833 11. Anh, Tran Thi Ngoc, Nguyen ThanhPhong, and Attaullah Jan. "Teachers'
834 Perceptions and Readiness for Digital Transformation in Education: Empirical
835 Evidence from Vietnam, a Developing Nation." *FWU Journal of Social*
836 *Sciences* 17.no.3 (2023).
837

838 12. Altay, GökçeBahar. *MüzikÖğretmenlerininMesleki*
839 *MemnuniyetveÖğretmeMotivasyonlari (Konya İli Örneği).* MS thesis. Necmettin
840 Erbakan University (Turkey), 2019.
841

*

842   13. Bardach, Lisa, and Robert M. Klassen. "Teacher motivation and student outcomes:
843   Searching for the signal." *Educational Psychologist* 56.4 (2021): 283-297.
844

845   14. Boadu, Samuel Kwaku, and Francis Ohene Boateng. "Enhancing students' achievement
846   in mathematics education in the 21st century through technology integration,
847   collaborative learning, and student motivation: The mediating role of student
848   interest." *Eurasia Journal of Mathematics, Science and Technology
849   Education* 20.11 (2024): em2534. 1-17
850   15. Bensaid, Benaouda, and Tayeb Brahimi. "Coping with COVID-19: higher education in
851   the GCC countries." *The International Research & Innovation Forum*. Springer,
852   Cham, 2020. 137-153
853

854   16. Cabanalan, Jasmine G., and Sierra Marie S. Aycardo. "TIKTOK: BILANG
855   MAKABAGONG PANDULOG AT ESTRATEHIYA SA PAGTUTURO NG
856   ASIGNATURANG FILIPINO." *EPRA International Journal of Research &
857   Development (IJRD)* 6.7 (2021): 1-1.
858

859   17. Canlı, Suzan, and NüliferKaradağ. "Motivation to teach: A mixed method
860   study." *Participatory Educational Research* 8.3 (2021): 227-251.
861

862   18. Cavan Jr, Wilfredo. "AngTagapamagitangEpekto Ng TeknolohiyaSaPagtuturo At
863   Pagkatuto Sa Ugnayan Ng Kahandaan Sa Pagsanib Ng Ict At
864   KognitibongPagganap Ng MgaGuro (The Mediating Effect of Technology in
865   Teaching and Learning in the The Relationship between Teacher Readiness in
866   Using ICT and Cognitive Performance)." (2021).
867   19. Coolican, Mariana, Juan Carlos Borras, and Michael Strong. "Argentina and the COVID-
868   19: Lessons learned from education and technical colleges in Buenos Aires
869   Province." *Journal of Education for Teaching* 46.4 (2020): 484-496.
870

871   20. Comighud, Sheena Mae T., and MelcaJamio Arevalo. "Motivation in relation to teachers'
872   performance." (2021). 1-15
873

874   21. Chanda, C. T., & Zohaib, H. S. (2024). "Harnessing Information Communication
875   Technology in Civic Education Teaching and Learning: A Comprehensive Review".
876   Global Scientific Journals, Volume 12, Issue 4, 112- 131, April 2024, Available:
877   www.globalscientificjournals.com, Online: ISSN 2320-9186.
878

879   22. Cheung, Simon KS, and Fu Lee Wang. "Blended learning in practice: guest
880   editorial." *Journal of Computing in Higher Education* 31.2 (2019): 229-232.
881

882   23. Cramer, H. et al. (2021). Sample Size: How Many Do I Need? *International Journal of
883   Social Research Methodology*, 24(6), 633-647. DOI:
884   10.1080/13645579.2021.1934804
885

886   24. Creswell, John W., and Cheryl N. Poth. *Qualitative inquiry and research design:
887   Choosing among five approaches.* Sage publications, 2016.
888

889   25. Dakhi, Oskah, JaliusJama, and Dedy Irfan. "Blended learning: a 21st century learning
890   model at college." *International Journal Of Multi Science* 1.08 (2020): 50-65.
891

892   26. Del Mundo, Hazel Jhoy C. "21st Century Digital Skills, Technology Integration in

*

Instruction and Challenges Encountered by Senior High School Teachers in Muntinlupa National High School." International Journal Of Multidisciplinary Research and Analysis ISSN (print): 2643-9840, ISSN (online): 2643-9875

27. Dewaele, Jean-Marc, and Chengchen Li. "Teacher enthusiasm and students' social behavioral learning engagement: The mediating role of student enjoyment and boredom in Chinese EFL classes." *Language Teaching Research* 25.6 (2021): 922-945.)

28. Despojo, Antonia Gueyndoline. "Teachers' Practices on the 21st Century Skills and Senior High School Students' Academic Performance in the Core Subjects: Basis for Improving Instruction." (2022): *UBT International Conference*: 316

29. De Villa, Jennilou A., and Franz Kevin B. Manalo. "Secondary teachers'preparation, challenges, and coping mechanism in the pre-implementation of distance learning in the new normal." *IOER International Multidisciplinary Research Journal* 2.3 (2020): 144-154.

30. Dizon, Rene Jr. C., Marie Fe D. de Guzman, and NovrinaBigilda A. Orge. "Training needs on learning delivery modalities of senior high school teachers of zambales, philippines: response to the changes in the basic education during the pandemic." (2021). 43-5

31. Esman, Esterline N., Joel M. Bual, and Dennis V. Madrigal. "Twenty-first Century Teaching Skills and Job Satisfaction of Public Senior High School Teachers in Central Philippines." *Asian Journal of Advanced Research and Reports* 17.7 (2023): 46-62.

32. Fabito, Bernie S., Arlene O. Trillanes, and Jeshnile R. Sarmiento. "Barriers and challenges of computing students in an online learning environment: Insights from one private university in the Philippines." *arXiv preprint arXiv: 2012.02121* (2020).

33. Fatimah, A. S. (2021). Teaching in 21st century: students-teachers' perceptions of technologyuse in the classroom. Journal of Linguistic and English Teaching, 2(2), 125

34. Fraenkel JR, Wallen NE, Hyun, HH. How to design and evaluate research education. Vol. 7. New York: McGraw-hill. 2012;7: 429.

35. Gaihre, Govinda Prasad, JeevanKhanal, and SubekshyaGhimire. "Practices and challenges of teachers motivation in community colleges of Nepal." *Community College Journal of Research and Practice* 46.11 (2022): 778-795.

36. Gautam, Dandapani. *Teachers' Motivation on the Use of ICTs in Teaching and Learning English*. Diss. Department of English Education, 2023. 1-56

37. Gerring, John. "Qualitative methods." *Annual review of political science* 20 (2017): 15-36.

38. Gobena, GemechuAbera. "Teaching Stress on In-Service Teachers' Motivation: It's Implication for Quality-Education in Ethiopian Secondary Schools." *Anatolian Journal of Education* 7.2 (2022): 143-156.

39. Halimahturrafiah, Nur, and SufyarmaMarsidin. "The Influence of Teacher Competence and Work Motivation on the Performance of State High School Teachers." *Journal of Education Research and Evaluation* 7.3 (2023). 362-369

*

40. Holmes, K. A., & Prieto-Rodriguez, E. (2018). Student and staff perceptions of a learning management system for blended learning in teacher education. Australian journal of teacher education, 43(3), 21-34. DOI:https://dx.doi.org/10.14221/ajte.2018v43n3.2

41. Hossein-Mohand, Hassan, et al. "Uses and resources of technologies by mathematics students prior to covid-19." *sustainability* 13.4 (2021): 1630.

42. Hsu, C.-C., & Sandford, B.A. (2021). The Delphi Technique: Making Sense of Consensus. *Practical Assessment, Research, and Evaluation*, 26(1), 1-15. DOI: 10.7275/0gqg-3t92

43. İlğan, A., Canoğlu,Ö., Karamert, Ö., &Şensoy, Ç. P. (2018). Öğretmenlerinçocuksevmedüzeyleriileöğretmemotivasyonlarıarasındakiilişkininince lenmesi [Examining relationship between like of children level and teaching motivation of teachers]. Turkish Studies Educational Sciences, 13(19), 979-1003. doi: 10.7827/TurkishStudies.13985.

44. Ismail Z. The mathematical modeling of flow and deformation in the human eye. Diss. University of Southampton. 2013:5.

45. Locke, E.A., & Latham, G.P. (2021). Building a Practically Useful Theory of Goal Setting and Task Motivation: A 35-Year Odyssey. *American Psychologist*, 56(2), 103-116. DOI: 10.1037/0003-066X.56.2.103

46. Jacinto, M. &Alieto, E.(2020). Virtual teaching attitude and technological competence among english as second language (esl) teachers: implications for the management of learning. asianefl (2020). 1-23

47. Javier, Cristina Lamsen. "The shift towards new teaching modality: examining the attitude and technological competence among language teachers teaching filipino." *asianesp* 16.2.1 (2020): 210-244.

48. Joldanova, Dinara, et al. "Formation of TPACK and Acmeological Competency of Future Teachers in Foreign Language Education." *International Journal of Education in Mathematics, Science and Technology* 10.4 (2022): 935-954.

49. Joshi, Amit, Muddu Vinay, and Preeti Bhaskar. "Impact of coronavirus pandemic on the Indian education sector: perspectives of teachers on online teaching and assessments." *Interactive Technology and Smart Education* (2020). 205-226

50. Jumaboyeva, Jamila Sharipovna, and GulbahorOybekovnaDaminova. "role of teachers'motivation in teaching." *вопросынауки и образования* 3 (2019): 84-88.

51. Kainama, Michelle Sarah, and Anne Lou Hendriks. "Lived experience of high school teachers amidst covid-19 pandemic: a phenomenological study." *project (Professional Journal of English Education)* 4.3 (2021): 542-547.

52. Kang, Muhammad Akhtar, and Kamal Haider. "Digital Transformation in Education: Readiness of Prospective Teachers in Karachi." *Journal of Education And Humanities Research (JEHR), University of Balochistan, Quetta* 17.1 (2024): 125-137.

*

997
998
999   53. Keskin, Sinan. "Factors affecting students' preferences for online and blended learning:
1000   Motivational vs. cognitive." *European Journal of Open, Distance and e-learning*
1001   *(EURODL)* 22.2 (2019): 72-86.
1002
1003   54. Kim, H., Choi, H., Han, J., & So, H.-J. (2022). Enhancing teachers ICT capacity for the
1004   21st century learning environment: Three cases of teacher education in
1005   Korea. Australian Journal of Educational Technology, 28(6), 965–982.
1006
1007   55. Kintu, Mugenyi Justice, Chang Zhu, and Edmond Kagambe. "Blended learning
1008   effectiveness: the relationship between student characteristics, design features
1009   and outcomes." *International Journal of Educational Technology in Higher*
1010   *Education* 14.1 (2017): 1-20.
1011   56. Kirichenko, A. V. "Acmeological determinants of experts selections for "mega science"
1012   class projects." *Journal of Physics: Conference Series*. Vol. 1685. No. 1. IOP
1013   Publishing, 2020.
1014
1015   57. Koh, J. H. L., Chai, C. S., & Tsai, C. C. (2020). Examining the role of technological
1016   pedagogical content knowledge in fostering teacher motivation: A focus on 21st-
1017   century learning environments. *Computers & Education*, 149, 103808.
1018
1019
1020   58. Kubrickýa, J., &Částková, P. (2015). Teachers ict competence and their structure as a
1021   means of developing inquiry-based education. Procedia - social and behavioral
1022   sciences, 186, 882 – 885 .
1023
1024   59. Kufi, EndalewFufa, et al. "Impact of corona pandemic on educational undertakings and
1025   possible breakthrough mechanisms." *BizEcons Quarterly* 11.1 (2020): 3-14.
1026
1027   60. Kholifah, Nur, et al. "The mediating role of motivation and professional development in
1028   determining teacher performance in vocational schools." *Cogent Education* 11.1
1029   (2024): 2421094.
1030
1031   61. Krejcie, R. V. "Determining sample size for research activities." *Educational*
1032   *PsycholMeas* (1970). 607-610
1033
1034   62. Lalima, D. K., &Dangwal, K. L. (2017). Blended learning: an innovative approach.
1035   Universal journal of educational research, 5(1), 129-136. DOI:
1036   https://doi.org/10.13189/ujer.2017.050116
1037
1038   63. Lorenzo, Arnold R. "Effectiveness of the computer and internet literacy project in public
1039   high schools of tarlac province, philippines." *Turkish Online Journal of Educational*
1040   *Technology-TOJET* 15.2 (2016): 38-46.
1041
1042   64. Legaspi, Maverick, et al. "Readiness, challenges and coping strategies of selected
1043   faculty in an academic institution towards teaching in new normal."(2021). 467-475
1044
1045   65. Li, Xiuhan, et al. "Applying blended synchronous teaching and learning for flexible
1046   learning in higher education: an action research study at a university in Hong
1047   kong." *Asia Pacific Journal of Education* (2020): 1-17
1048

*

1049 66. Lincon, Y. S., and Egon G. Guba. "Naturalistic inquiry. Beverly Hills." *CA: Sage*
1050 *Publications. Lee, WS (2001). Parents divorce and their duty to support the*
1051 *expense of bringing up their child. Asian Women* 13 (1985): 85-105.
1052

1053 67. Linton, Jayme N. "Institutional factors for supporting electronic learning
1054 communities." *Online Learning* 21.1 (2017): 238-256.
1055

1056 68. Loveless, B. "Strategies for building a productive and positive learning
1057 environment." *Education Corner.* https://www. educationcorner. com/building-a-
1058 positive-learningenvironment. html (2020)
1059

1060 69. Lumbre, Jose Andrey O. "Coping mechanisms of novice junior high school mathematics
1061 teachers." *European Journal of Education Studies* (2020). 294-331
1062

1063 70. .Lumpkin, Angela. "Effective teaching and learning—A five-step process." *Journal*
1064 *ofEducation and Culture Studies* (2020): 32-43.)
1065

1066 71. Mailizar, Mailizar, and Lianghuo Fan. "Indonesian teachers' knowledge of ict and the use
1067 of ict in secondary mathematics teaching." *Eurasia Journal of Mathematics,*
1068 *Science and Technology Education* 16.1 (2020).
1069

1070 72. Maslow, A.H. (2021). A Theory of Human Motivation. In *Motivation and Personality* (pp.
1071 10-30). Harper & Row.
1072

1073 73. Micaroz, Mhariz M., and Rammel T. Bayani. "21st Century Digital Media Information: In
1074 The Lens of Gen Z (PahayagangMidyang Digital Sa Ika-21 Siglo: Sa Lente Ng Gen
1075 Z)." (2021) 27-41
1076

1077 74. Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A
1078 Framework for Teacher Knowledge. *Teachers College Record*, 108(6), 1017-1054.
1079

1080 75. Moralista, Rome B. "RB &Oducado, RM. "Faculty perception toward onlineeducation in a
1081 state college in the philippines during the coronavirus disease 19 (covid-19)
1082 pandemic." *Universal Journal of Educational Research* 8.10 (2020): 4736-4742.
1083

1084 76. Mulyono, Herri, et al. "Eflteachers'perceptions of indonesian blended learning course
1085 across gender and teaching levels." *Teaching English with Technology* 21.1
1086 (2021): 60-74.
1087

1088 77. Mafidapuspadina, Mafidapuspadina, DjadirDjadir, and NurwatiDjam'an. "Evaluation of
1089 Teacher's Competencies and Its Effect on Mathematics Learning in 21st
1090 Century." *International Conference on Educational Studies in Mathematics*
1091 *(ICoESM 2021).* Atlantis Press, 2021. 19-26
1092

1093 78. Mansor, AzlinNorhaini, et al. "Home -based learning (HBL) teacher readiness scale:
1094 Instrument development and demographic analysis." *Sustainability* 13.4 (2021):
1095 2228.
1096

1097 79. Mantra, Ida BagusNyoman, NengahDwiHandayani, and AnakAgungIstriYudhiPramawati.
1098 "Alternative Learning Methods Employed by Language Teachers in the New
1099 Normal of COVID-19." *IJEE (Indonesian Journal of English Education)* 8.2 (2021):
1100 232-246.
1101

*

80. Martinez, Corinne. "Developing 21st century teaching skills: A case study of teaching and learning through project-based curriculum." *Cogent Education* 9.1 (2022): 2024936.

81. Napil, Melissa C., and Eufemia B. Porque. "Digital Readiness, Academic Motivation, Learning Strategies: A Structural Approach to Motivation in Writing Performance of Freshmen College Students." *Asian Journal of Education and Social Studies* (2022): 60-76.

82. Njenga, Moses. "Continuing professional development of vocational teachers in Kenya: Motivations, practices and teacher profiles." *International Journal of Educational Research Open* 5 (2023): 100282.

83. Nguyen, T. H., Pham, A. T., & Le, D. K. (2023). Digital overload and teacher stress: Implications for motivation in the digital age. *Journal of Educational Technology & Development*, 15(2), 98-112.

84. Ocampo, Liane Vina G., and Alfe M. Solina. "Teachers' competencies and attitudes in coping with changing educational modalities amid covid-19: basis for faculty enhancement program." *Dr. Ethel Chua Reyes* (2020) 18.

85. Olt, Phillip Allen, and Eric D. Teman. "A duoethnographic exploration of persistent technological failures in synchronous online education." *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*. Vol. 19. No. 3. 2018.

86. Onyefulu, Cynthia, Joanna Madalinska-Michalak, and BunyaminBavli. "Teachers' motivation to choose teaching and remain in the profession: A comparative mixed methods study in Jamaica, Poland and Turkey." *Power and Education* 15.1 (2023): 37-65.

87. Palinkas, Lawrence A., et al. "Purposeful sampling for qualitative data collection and analysis in mixed method implementation research." *Administration and policy in mental health and mental health services research* 42.5 (2015): 533-544.

88. Parsons VL. Stratified Sampling. Wiley StatsRef:Statistics Reference Online. 2017:1-11.

89. Pastor, Cherish Kay Landicho. "Sentiment analysis on synchronous online delivery of instruction due to extreme community quarantine in the Philippines caused by COVID-19 pandemic." *Asian Journal of Multidisciplinary Studies* 3.1 (2020): 1-6.

90. Patton, Michael Quinn. "Enhancing the quality and credibility of qualitative analysis." *Health services research* 34.5 Pt 2 (1999): 1189.

91. Purba, Ridwin, et al. "Improving teachers'competence through the mplementation of the 21st century competencies in a post-covid-19 pandemic." *JMM (JurnalMasyarakatMandiri)* 6.2 (2022): 1486-1497.

92. Qasem, A. A. A., &Viswanathappa, G. (2016). Teacher perceptions towards ICT integration: Professional development through blended learning. Journal of Information Technology Education: Research, 15, 561-575. DOI: https://doi.org/10.28945/3562

*

93. Rahmania, Rahmania, DyahSunggingwati, and Ida Wardani. "Teacher Readiness for Online Teaching Using Mobile Technology." *E3L: Journal of English Teaching, Linguistic, and Literature* 5.2 (2022): 95-104.

94. Reeve, Johnmarshall, and Stephanie H. Shin. "How teachers can support students' agentic engagement." Theory Into Practice 59.2 (2020): 150-161.

95. Revilla, Emmanuel Cuasay, Leandro RagudoRemojo, and Joanna Marie de Borja. "Motivational Factors as Predictors of Teaching Motivation Among Junior High School Teachers in the New Normal." *JurnalPendidikanProgresif* 12.1 (2022): 96-108.

96. Richards, Lyn. *Handling qualitative data: A practical guide*. Sage, 2020.

97. Rincon-Flores, Elvira G., Juanjo Mena, and Eunice López-Camacho. "Gamification as a teaching method to improve performance and motivation in tertiary education during COVID-19: A research study from Mexico." *Education Sciences* 12.1 (2022): 49.

98. Rusydi, Rusydi, and LosoJudijanto. "21ST CENTURY EDUCATIONAL TRANSFORMATION: INNOVATIONS AND CHALLENGES IN TEACHING AND LEARNING." *INTERNATIONAL JOURNAL OF SOCIAL AND EDUCATION* 1.8 (2024): 2074-2083.

99. Ryn, Ang Sher, and S. C. Sandaran. "Teachers' practices and perceptions of the use of ICT in ELT classrooms in the pre-Covid 19 pandemic era and suggestions for the'new normal'." *LSP International Journal* 7.1 (2020).99-119

100. Salayo, Juland, et al. "Senior high school teachers' and students' engagements during the emergency remote teaching (ERT): Perceptions on readiness, attitude, and competence." *Studies in Humanities and Education* 1.1 (2020).

101. Seo, Mikyoung. "Negative Effects of Digital Technologies and the Direction of Church Education in the Era of the Great Digital Transformation."85-105

102. SonmezErgul, Esra, and Mustafa Koc. "Pre-service teachers' lived experiences with taking courses through learning management systems: a qualitative study." *Turkish Online Journal of Distance Education* 19.2 (2018): 101-116.

103. Tambunan, Hardi, BornokSinaga, and WahyuWidada. "Analysis of Teacher Performance to Build Student Interest and Motivation towards Mathematics Achievement." *International Journal of Evaluation and Research in Education* 10.1 (2021): 42-47.

104. Tayag, Jarrent R. "Pedagogical support for blended learning classrooms: Interfacing teacher and student perspectives." *Universal Journal of Educational Research* 8.6 (2020): 2536-2541.

105. Thelma, ChandaChansa, et al. "Curriculum design for the digital age: Strategies for effective technology integration in higher education." *International Journal of Research* 11.07 (2024): 185-201.

*

106. Terry, Gareth, et al. "Thematic analysis." *The SAGE handbook of qualitative research in psychology* 2 (2017): 17-37.

107. Tolentino De León, Crisanta. "Esl Teachers And Students' Perceptions Toward Blended-Learning During Covid-19 Pandemic." (2022).44-5

108. Tomczyk, Łukasz. "Skills in the area of digital safety as a key component of digital literacy among teachers." Education and Information Technologies 25.1 (2020): 471-486.

109. Tonga, FundaEda, et al. "Professional development of teachers in PISA achiever countries: Finland, Estonia, Japan, Singapore and China." *Professional development in education* 48.1 (2022): 88-104.

110. Türkoğlu, MuhammetEmin, RamazanCansoy, and HanifiParlar. "Examining relationship between teachers' self-efficacy and job satisfaction." (2017). 765-772.

111. UNESCO. *Global Education Monitoring Report 2019: Migration, Displacement and Education-Building Bridges, Not Walls.* UN, 2018.

112. Velasco, Charles R., and B. Maria Cristina. "Online teaching readiness of the faculty of aurora state college of technology, Baler, Aurora, Philippines." (2020) 34-44.

113. Wang, Alf Inge, and Rabail Tahir. "The effect of using Kahoot! for learning–A literature review." *Computers & Education* 149 (2020): 103818.

114. Warren, Liz, et al. "Self-efficacy, performance and the role of blended learning." *Journal of Applied Research in Higher Education* (2020). 98-111

115. Warsi, LubnaQuddus, and Yamna Rani. "Analysis of Teachers' Readiness in Using Digital Technology for Students' Learning: Problems and Potential Solutions." *Human Nature Journal of Social Sciences* 5.2 (2024): 292-305.

116. Watson, John, and Amy Murin. "A history of K-12 online and blended instruction in the United States." *Handbook of research on K-12 online and blended learning.* 2014. 1-23.

117. World Bank. *World development report 2018: Learning to realize education's promise.* The World Bank, 2017.

118. Xue, Eryong, Jian Li, and Liujie Xu. "Online education action for defeating COVID-19 in China: An analysis of the system, mechanism and mode." *Educational Philosophy and Theory* (2020): 1-13

119. Yapici, I.U. &Hevedanli, M. (2022). International educational technology conference IETC2012. Preservice biology teachers' attitudes towards ICT using in biology teaching. Procedia Social and Behavioral Sciences, 64, 633–638. https://doi.org/10.1016/j.sbspro. 2012.11.074

120. Yustina, Y., W. Syafii, and R. Vebrianto. "The effects of blended learning and project-based learning on pre-service biology teachers' creative thinking through online learning in the Covid-19 pandemic." *JurnalPendidikan IPA Indonesia* 9.3 (2020): 408-420.

*

121. Zaneldin, Essam, Waleed Ahmed, and Bilal El-Ariss. "Video-based e-learning for an undergraduate engineering course." *E-learning and Digital Media* 16.6 (2019): 475-496.

122. Zeng, Jing. "A theoretical review of the role of teacher professional development in EFL students' learning achievement." *Heliyon* 9.5 (2023).1-6

123. Zou, Honghui, et al. "The influence of teachers' intrinsic motivation on students' intrinsic motivation: The mediating role of teachers' motivating style and teacher-student relationships." *Psychology in the Schools* 61.1 (2024): 272-286.

124. Zhang, Xin, WilfriedAdmiraal, and Nadira Saab. "Teachers' motivation to participate in continuous professional development: relationship with factors at the personal and school level." *Journal of Education for Teaching* 47.5 (2021): 714-731.

125. Zhu, Yue, et al. "University students' online learning attitudes and continuous intention to undertake online courses: A self-regulated learning perspective." *Educational technology research and development* 68 (2020): 1485-1519.

1236. Zvyagintseva, E.P. &Drobysheva, N.N. (2018). Foreign Languages Training and its Peculiarities from Acmeology Standpoint. Economic and Socio-Humanitarian Research, 4(20), 116-121

*