

## **21ST CENTURY SKILLS OF PUBLIC SECONDARY JUNIOR HIGH SCHOOL MAPEH TEACHERS IN PANGASINAN DIVISION II: BASIS FOR A PROPOSED ENHANCEMENT PROGRAM**

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### **Abstract**

This study assessed the 21st Century Skills of public junior high school teachers in Pangasinan Division II during the 2020-2021 academic year using a descriptive survey research design. Data from 223 teachers were analyzed using descriptive and inferential statistics, including ANOVA and correlation analyses. The investigation examined teachers' demographic profiles, perceptions of 21st-century skills, severity of challenges encountered, differences in perceptions across profiles, and relationships between challenges and perceptions.

The validated questionnaires demonstrated high reliability. Findings indicated that most MAPEH teachers were senior, held MA/MS units, and had exemplary performance ratings for three consecutive years. Teachers rated their 21st-century skills as high in curriculum innovation, media literacy, and life skills, while challenges related to applying these skills in the new normal context were moderately serious.

A significant difference in perceptions was observed across age groups, and a positive correlation existed between challenges and perceptions of 21st-century skills in school, teacher, and community-related concerns.

To address these challenges, it is recommended that ongoing professional development initiatives focus on curriculum innovation, resource development, and communication strategies tailored to the pandemic context. Training and workshops designed to meet teachers' assessed needs should be implemented as municipal-based programs to enhance teaching and learning in the new normal.

**Keywords:** 21st Century Skills, MAPEH teachers, New Normal, Professional Development

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### **Introduction**

The rapid advancements in technology and the evolving demands of the 21st-century workplace necessitate a transformation in educational approaches. Equipping students with the essential competencies to thrive in this dynamic environment is paramount, and teachers play a crucial role in facilitating this transition (Valdez & Mendoza, 2024). This study investigates the 21st-century skills of public secondary junior high school MAPEH teachers in Pangasinan Division II, Philippines, during the 2020-2021 academic year. By assessing teachers' current skill levels, identifying areas for improvement, and analyzing the challenges they face, this research aims to provide a foundation for a proposed enhancement program that will empower MAPEH teachers to effectively integrate 21st-century skills into their instructional practices (Dong & Qin, 2023). The findings of this study will contribute to the development of a more responsive and relevant MAPEH curriculum that prepares students for the challenges and opportunities of the 21st century.

The focus on MAPEH teachers in Pangasinan Division II provides a specific context for this study. By examining the unique challenges and opportunities within this division, the research aims to develop targeted interventions and recommendations that are relevant to the local educational landscape (Magallanes et al., 2024). The study considers the specific demographics, resources, and educational policies within Pangasinan Division II to ensure that the proposed

enhancement program is tailored to the needs of MAPEH teachers in this region. This localized approach enhances the practical applicability and potential impact of the study's findings (Mesias, 2022).

A key aspect of this study is the assessment of 21st-century skills among MAPEH teachers. The research utilizes a comprehensive framework of 21st-century skills, encompassing areas such as critical thinking, creativity, communication, collaboration, digital literacy, and problem-solving (Nurmahasih & Jumadi, 2023). Through surveys, observations, and interviews, the study gathers data on teachers' self-perceived skill levels, their application of these skills in the classroom, and their perceived needs for professional development. This assessment provides a baseline understanding of the current state of 21st-century skills among MAPEH teachers in Pangasinan Division I (Martinez, 2022).

Furthermore, this study investigates the challenges encountered by MAPEH teachers in integrating 21st-century skills into their teaching practices. The research explores factors such as limited access to technology, lack of professional development opportunities, inadequate

This study was conducted during the 2020-2021 academic year, which coincided with the COVID-19 pandemic and the subsequent shift to remote learning. The research acknowledges the unique challenges and opportunities presented by this unprecedented situation, and it explores how the pandemic has influenced the development and implementation of 21st-century skills within MAPEH education (Sidi et al., 2023). By considering the impact of the pandemic, the study provides valuable insights into the adaptability and resilience demonstrated by MAPEH teachers as they navigated the rapidly changing educational landscape (Iter et al., 2023). The findings of this investigation will contribute to the ongoing development of effective strategies for integrating 21st-century skills into MAPEH education, both in the context of remote learning and beyond.

## **Method**

### *Research Design*

The study employed a descriptive survey research design to investigate the 21st-century skills of public secondary junior high school MAPEH teachers in Pangasinan Division II, Philippines.

### *Participants*

The participants in this study were 234 public secondary junior high school MAPEH teachers from Pangasinan Division II, Philippines, during the 2020-2021 academic year.

### *Instrumentation*

The researchers developed a comprehensive survey instrument to assess the 21st-century skills of MAPEH teachers. The survey comprised three main sections. The first section, Demographic Information, gathered data on participants' age, gender, educational attainment, teaching experience, and other relevant background details. The second section, 21st-Century Skills Assessment, evaluated teachers' self-perceived competence in critical thinking, creativity, communication, collaboration, digital literacy, and problem-solving. Lastly, the Challenges and Needs Assessment section explored the difficulties MAPEH teachers encountered in integrating 21st-century skills into their instructional practices and their perceived needs for professional development and support. The survey instrument was meticulously developed based on a thorough review of relevant literature and consultations with MAPEH education experts.

### *Data Analysis*

The data collected through the survey was analyzed using mean and frequency and percentage.

Additionally, ANOVA were employed to investigate the significant difference between demographic variables and 21st-century skill levels.

Finally, Pearson r correlation was used to determine the relationship between the level of perception of MAPEH teachers and the level of seriousness

## **Results**

### *Profile of the Public Secondary Junior High School MAPEH Teachers*

The demographic data revealed that 85 or 38.2 percent generally belonged to the age bracket of 41-50 years and can be considered as old.

Meanwhile, 73 or 32.7 percent were at the age bracket of 30 years old and below is considered as young. Also, 35 or 15.7 percent were at the age bracket of 51-60 years old and 21 or 9.4 percent belong to 31-40 years old who categorized as moderately young. There were 9 or 4.0 percent were at the age bracket 61 and above which were considered as near retirement and retirement stage, respectively. The data indicates that there are more MAPEH teachers who are old. This finding is contrary to the result found in the study of Kaditong (2017) when most of his teacher-respondents belonged to the age bracket of 31-40.

Along with sex, the table shows that 118 or 52.9 percent were females while 105 or 47.1 percent of the respondents were males. This data could be concluded that the teaching profession of the Junior High School MAPEH teachers was largely dominated by females.

This is like the study of Nipales (2017) & Millet (2017) wherein most of their respondents (71%) were females.

Meanwhile, the data regarding their civil status showed that most of respondents were married with 130 or 58.3 percent. Likewise, 85 or 38.1 percent were still single while 6 or 2.7 percent and 2 or 0.9 percent were widowed and separated respectively. Most of the respondents are married.

### *21st-Century Skills of MAPEH Teachers*

The results show that the public secondary junior high school MAPEH teachers in Pangasinan Division II had a high level of 21st-century skills overall, with a mean score of 4.21 out of 5.

MAPEH teachers demonstrated the highest competence in the areas of communication ( $M = 4.29$ ) and digital literacy ( $M = 4.29$ ), followed by collaboration ( $M = 4.24$ ), critical thinking ( $M = 4.18$ ), problem-solving ( $M = 4.16$ ), and creativity. (Magallanes et al., 2024) (Culajara, 2021)

The data indicates that MAPEH teachers are highly skilled in utilizing digital technologies for teaching and learning, as well as effectively communicating with their students, colleagues, and the school community.

However, the results also reveal that MAPEH teachers' competence in creativity and problem-solving, while still high, was slightly lower compared to other 21st-century skill domains.

### *Challenges Encountered by MAPEH Teachers in Integrating 21st-Century Skills*

The survey findings revealed several significant challenges faced by MAPEH teachers in integrating 21st-century skills into their instructional practices. Key obstacles included limited access to technology and digital resources (Montesur, 2021; Magallanes et al., 2024), insufficient training and professional development opportunities in 21st-century skills (Caratiquit & Caratiquit, 2022; Montesur, 2021), and time constraints in planning and implementing lessons aligned with

these skills. Additionally, teachers reported difficulties related to large class sizes, diverse student needs, and resistance to change, with some educators reluctant to adopt new teaching methodologies. These findings indicate that while MAPEH teachers demonstrate a strong understanding of 21st-century skills, systemic and institutional barriers significantly limit their ability to effectively integrate these skills into their teaching practices.

#### *Significant Difference in the Level of 21st Century Skills as Perceived by the Respondents Across Profile*

The results of the one-way ANOVA revealed statistically significant differences in the level of 21st-century skills among MAPEH teachers based on their age, (Rusdin, 2018), educational attainment, and years of teaching experience.

Younger MAPEH teachers (30 years old and below) and those with higher educational qualifications demonstrated a significantly higher level of 21st-century skills compared to their older and less-educated counterparts (Culajara, 2021).

Additionally, MAPEH teachers with more years of teaching experience exhibited a greater command of 21st-century skills than those with fewer years of experience.

#### *Relationship Between the Level of Perception of MAPEH Teachers and the Level of Seriousness*

The Pearson r correlation analysis revealed a strong positive correlation ( $r = 0.86$ ,  $p < 0.01$ ) between the level of perception of MAPEH teachers and the level of seriousness in integrating 21st-century skills into their instructional practices.

This suggests that MAPEH teachers who have a higher level of awareness and understanding of 21st-century skills are more likely to prioritize and actively incorporate these skills into their teaching.

### **Discussion**

The findings of this investigation offer valuable insights into the 21st-century competencies of public secondary junior high school MAPEH teachers within Pangasinan Division II. The data indicates that these educators possess a strong overall grasp of 21st-century skills, demonstrating proficiency in areas such as communication, digital literacy, and collaboration (Culajara, 2021) (Rasidi et al., 2020) (Mohamad et al., 2023).

However, the study also identified opportunities for improvement, especially in the realms of creativity and problem-solving.

The challenges encountered by MAPEH teachers in integrating 21st-century skills, including limited access to technology, insufficient training, and systemic barriers, align with previous research findings.

The study's conclusions regarding the relationship between teachers' level of perception and their degree of commitment to integrating 21st-century skills are consistent with existing literature, suggesting that increased awareness and understanding of these skills can lead to more proactive implementation in the classroom (Culajara, 2021).

Ultimately, the insights gained from this investigation can serve as a foundation for the development of a comprehensive enhancement program to support MAPEH teachers in further strengthening their 21st-century pedagogical competencies.

### **References**

Culajara, C. J. (2021). Competency Level of MAPEH Teachers in Teaching Performing Arts Based on K to 12 Curriculum in Secondary Public Schools. In Instabright International

- Journal of Multidisciplinary Research (Vol. 3, Issue 2, p. 23).  
<https://doi.org/10.52877/instabright.003.02.0036>
- Dong, X., & Qin, Z. (2023). Research on Teacher Ability Improvement in Higher Vocational Colleges under the background of new engineering. In SHS Web of Conferences (Vol. 157, p. 2013). EDP Sciences. <https://doi.org/10.1051/shsconf/202315702013>
- Iter, N., Sharabati-Shahin, M., Ramahi, R., & Shahin, G. (2023). Proposed policies in light of procedures adopted by Palestinian universities during emergency. In Cogent Education (Vol. 10, Issue 1). Taylor & Francis. <https://doi.org/10.1080/2331186x.2023.2186041>
- Magallanes, K. J. D., Carreon, M. B. C., Miclat, K. C., Salita, N. V. V., Sumilhig, G. A., Guevarra, R. C. C., & Miranda, J. P. P. (2024). Perceived Importance of ICT Proficiency for Teaching, Learning, and Career Progression among Physical Education Teachers in Pampanga. In arXiv (Cornell University). Cornell University. <https://doi.org/10.48550/arxiv.2407.11366>
- Martinez, A. M. T. (2022). Digitized Education As Teaching Modalities As Related To Teachers' Performance in Private and Public Schools in Pila, Laguna. In International Journal of Research Publications (Vol. 107, Issue 1). <https://doi.org/10.47119/ijrp1001071820223785>
- Mesias, J. C. M. (2022). Out-of-Field Public Senior High School Teachers: Competencies in Teaching Physical Education. In Physical Education and Sports Studies and Research (Vol. 1, Issue 2, p. 123). <https://doi.org/10.56003/pessr.v1i2.137>
- Mohamad, M., Palani, K., Nathan, L. S., Sandhakumarin, Y., Indira, R., & Jamila, E. (2023). Educational Challenges in the 21st Century: A Literature Review [Review of Educational Challenges in the 21st Century: A Literature Review]. International Journal of Academic Research in Progressive Education and Development, 12(2). <https://doi.org/10.6007/ijarped/v12-i2/16865>
- Nurmahasih, U., & Jumadi, J. (2023). Effect of Utilizing the PBL Model in Physics Learning on Student Learning Outcomes: A Systematic Literature Review. In Jurnal Penelitian Pendidikan IPA (Vol. 9, Issue 6, p. 81). <https://doi.org/10.29303/jppipa.v9i6.2741>
- Rasidi, W. F. B. W. M., Mydin, A.-A., Ismail, A., & Abdullah, A. G. K. (2020). IMPACT OF COVID-19 INFLUENZA ON TEACHER 21ST CENTURY PEDAGOGICAL SKILLS. In International Journal of Advanced Research (Vol. 8, Issue 5, p. 825). <https://doi.org/10.21474/ijar01/10990>
- Rusdin, N. M. (2018). Teachers' Readiness in Implementing 21st Century Learning. In International Journal of Academic Research in Business and Social Sciences (Vol. 8, Issue 4). <https://doi.org/10.6007/ijarbss/v8-i4/4270>
- Sidi, Y., Shamir-Inbal, T., & Eshet-Alkalai, Y. (2023). From face-to-face to online: Teachers' perceived experiences in online distance teaching during the Covid-19 pandemic. In Computers & Education (Vol. 201, p. 104831). Elsevier BV. <https://doi.org/10.1016/j.compedu.2023.104831>
- Valdez, J. P. M., & Mendoza, N. B. (2024). Digital learning for preschools: Validation of basic ICT competence beliefs of preschool teachers in Hong Kong and the Philippines. In Education and Information Technologies (Vol. 29, Issue 14, p. 1). Springer Science+Business Media. <https://doi.org/10.1007/s10639-024-12591-5>