ISSN: 2945-4190

World Journal on Education and Humanities Research
Creative Commons Attribution 4.0 International
Vol. 4, Issue 1, pp. 146-159
Received, February 2024; Revised March 2024;
Accepted March 2024

Article

Assessing the Different Learning Modalities of a Selected Public Elementary School

Bernadeth Cardeño
Sarah Ben Sopsop
Luz Orbeta
Kaitlin Marie Opingo
Randy Mangubat
Veronica Calasang

Corresponding Author: bernadethcardeño08@gmail.com

Abstract: This study evaluates the perceived effectiveness of digital learning, module-based learning, and face-to-face teaching methods, assessing their benefits and challenges from the learners' perspective. Through a structured survey encompassing various effectiveness indicators, the study quantifies learners' experiences across these teaching modalities, highlighting digital learning's flexibility and resource accessibility, module-based learning's personalization, and face-to-face teaching's superior interaction and immediate feedback. With an aggregate analysis of effectiveness ratings, face-to-face teaching emerges as the most effective, attributed to its interactive and engaging environment. The study further explores the relationship between learners' demographic profiles and the perceived effectiveness of these methods, finding most variables, such as age, gender, and educational background, to have no significant impact, except for age in relation to module-based learning. This indicates a universal applicability of these findings across diverse learner demographics, with nuanced preferences influenced by age for module-based learning. The results contribute to understanding the comparative advantages of each teaching method and guiding educators in optimizing learning experiences.

Keywords: Learning Modalities, digital learning, module-based learning, face to face teaching

Introduction

The global pandemic has significantly altered the landscape of education, compelling schools worldwide to adapt rapidly to ensure continuity in learning (Raimers, 2021). Public elementary schools, in particular, have had to navigate a shift from traditional face-to-face instruction to various alternative learning modalities, including online learning, modular learning, and hybrid models combining elements of both (Singh et al., 2021; Imran et al., 2021). This shift underscores the

critical need to evaluate and understand the effectiveness of these diverse learning approaches, especially in early childhood education where foundational skills are developed (Jalongo, 2021).

The importance of different learning modalities in early childhood education cannot be overstated. During these formative years, children are highly receptive to learning, and the method by which education is delivered can profoundly affect their engagement, comprehension, and retention of information (Tus, 2021). Traditional classroom settings may favor auditory and visual learners, but alternative modalities like hands-on activities and interactive digital platforms cater to kinesthetic learners and those who benefit from a more tactile approach (Walid& Benkouiten, 2023). Ensuring a variety of learning modalities accommodates diverse learning styles, promoting inclusivity and equal opportunities for all children to succeed (Sanger, 2020).

According to Quintos et al., (2020) for teachers and students in public schools, the adoption of various learning modalities is particularly significant. Teachers are tasked with the challenge of reaching students across a wide spectrum of socio-economic backgrounds, many of whom may lack access to technology or face other barriers to learning (Ulzheimer et al., 2021). Different learning modalities allow teachers to tailor their instructional strategies to meet the needs of their students more effectively, whether through low-tech solutions like printed modules or through digital platforms that offer interactive and engaging content (Lennox et al., 2021; Fontanos et al., 2020). For students, these modalities can provide more equitable access to education, ensuring that learning continues unabated, regardless of their circumstances (McKay & Mabunda, 2022). The establishment of different learning modalities is paramount in attaining quality education in early childhood (Agaton & Cueto, 2021). Quality education is characterized not only by the content delivered but also by how well it is absorbed and understood by students (Simamora, 2020). Diverse learning modalities ensure that teaching methods are adaptable to individual learning preferences, thereby enhancing comprehension and fostering a love for learning (Frutas, 2023). This adaptability is crucial in early childhood education, where positive educational experiences can lay the groundwork for lifelong learning and achievement (Dishon & Gilead, 2021).

Empirical research on learning styles in education, particularly in the context of early childhood, has provided valuable insights into how different modalities impact learning outcomes. Studies have explored various aspects, from the effectiveness of digital learning tools in enhancing literacy and numeracy skills to the role of hands-on activities in promoting critical thinking and problem-solving abilities. Such research underscores the necessity of incorporating a broad spectrum of learning modalities into the curriculum to address the diverse needs of young learners.

However, there remain significant research gaps in understanding the full impact of different learning modalities in public elementary schools. For instance, there is a need for more comprehensive studies on the profile of respondent groups, such as teachers' backgrounds, learning preferences, and access to resources, which can influence the effectiveness of learning modalities. Additionally, empirical data on the level of effectiveness of various modalities in different subject areas in the context of schools in Cebu City.

To address these gaps, future research should aim to conduct in-depth studies that not only evaluate the immediate impact of different learning modalities on student engagement and achievement but also examine their long-term effects on educational outcomes. Such research should consider the diverse teachers backgrounds, the availability of resources, and the adaptability of teachers to implement these modalities effectively. Focusing on these areas, researchers can provide valuable insights that will guide educators in refining and optimizing learning modalities to ensure that all children have access to quality education, regardless of their circumstances. This direction of research is crucial for developing educational strategies that are inclusive, equitable, and capable of meeting the challenges of the 21st century education.

Methodology

This research utilized a Descriptive Correlational design within the quantitative research methodology framework, as detailed by Creswell & Creswell (2021). This approach was strategically chosen for its capacity to explore and identify the relationships among various variables without the need for manipulation, a feature underscored by Field (2021). Specifically, the study aimed to investigate the correlations between the shift from digital and modular-based instruction back to traditional face-to-face teaching post-pandemic and its subsequent impact on early literacy outcomes, as highlighted by Neuman (2021). This design was pivotal in unraveling the complexities of how different instructional strategies employed by teachers and the preceding modes of instruction correlated with literacy achievements among students. The methodology's strength lies in its ability to uncover intricate relationships in natural settings, making it particularly effective for examining the real-world implications of educational transitions observed post-pandemic. The research framework was anchored on the Input-Process-Output (IPO) model, ensuring a structured and systematic investigation. The study engaged a convenience sample of teachers as respondents and implemented a rigorous three-stage data collection process—Preliminary, Data Gathering, and Post Data Gathering stages—to enhance the validity and reliability of the findings. A 4-point Likert scale was employed in the teacher

questionnaire to evaluate the effectiveness of various learning modalities, including Digital Learning, Module-based Learning, and Face-to-Face Teaching, ranging from 1 ('Not Effective') to 4 ('Very Effective'), thus providing a nuanced understanding of educators' perceptions on the efficacy of different instructional approaches.

Results and Discussion

Table 1. Age

	Frequency	Percentage
A. Age [in years]		
21 - 30	9	23.08
31 - 40	20	51.28
41 - 50	8	20.51
51 - 60	2	5.13

Table 1 presents a distribution of teachers' ages categorized into four age groups, along with their corresponding frequencies and percentages. The table reveals that the majority of the teachers fall within the 31-40 age group, comprising 20 teachers, which accounts for 51.28% of the total. This suggests that over half of the teachers are in their early to late thirties. The next largest group is those aged between 41 and 50, with 8 teachers, making up 20.51% of the total, indicating a significant presence of middle-aged educators. The youngest age group, 21-30 years, includes 9 teachers, representing 23.08% of the population, showing that nearly a quarter of the teachers are relatively young. The smallest group is the 51-60 age bracket, with only 2 teachers, constituting 5.13% of the total, indicating a minimal representation of senior-aged teachers. This distribution highlights a concentration of teachers in the 31-40 age range, with a tapering presence of younger and older educators.

Table 2. Gender

	Frequency	Percentage
B. Gender		
Female	38	97.44
Male	1	2.56

Table 2 provides a breakdown of gender distribution among teacher's respondent. From the data presented, it is evident that females significantly dominate the group, with 38 individuals making up 97.44% of the total. In stark contrast, there is only 1 male participant, accounting for a mere 2.56% of the group. This disparity highlights a profound gender imbalance, indicating an overwhelmingly female-dominated environment. Such a distribution might reflect specific characteristics or preferences of the group's context, potentially suggesting a field or setting traditionally or currently more occupied by females.

Table 3. Civil Status

	Frequency	Percentage
C. Civil Status		
Single	3	7.69
Married	35	89.74
Separated	1	2.56

Table 3 details the civil status of teacher respondents. From the data, it is clear that the overwhelming majority, 35 individuals or 89.74% of the group, are married. This high percentage indicates that marriage is the predominant civil status among the individuals, suggesting a group largely composed of people in committed relationships. Only a small fraction, 3 individuals or 7.69%, are single, indicating that unmarried individuals are notably less common in this particular context. Additionally, there is a minimal presence of individuals who are separated, with only 1 person or 2.56% falling into this category. The predominance of married individuals could reflect the group's demographic or cultural characteristics, potentially pointing to an environment or setting where marriage is highly prevalent or valued.

Table 4. Highest Educational Attainment

	Frequency	Percentage
D. Highest Educational Attainment		
College Graduate	6	15.38
Masters Level	31	79.49
Masters Graduate	2	5.13

Table 4 outlines the distribution of teacher's highest educational attainment. The data reveals a significant leaning towards advanced education within the group. The majority, with 31 individuals, are at the Masters Level, making up 79.49% of the total. This high percentage suggests that a substantial portion of the group has pursued postgraduate education beyond a Bachelor's degree but has not necessarily completed a Master's program.

Following this, 6 individuals, or 15.38%, have attained a College Graduate level of education, indicating they have completed an undergraduate degree. The smallest category is Masters Graduates, with only 2 individuals or 5.13%, who have completed their Master's degree program. The predominance of individuals at the Masters Level highlights a group with a strong inclination towards higher education, particularly in graduate studies. This distribution might reflect the group's professional or academic orientation, suggesting a context where advanced education is highly valued or required.

Table 5. Years of Teaching

	Frequency	Percentage
E. Years of Teaching in Early Childhood		
Less than a year	30	76.92
1 - 10	8	20.51
11 - 20	1	2.56

Table 5 presents the distribution of teacher's years of teaching experience. The data reveals a significant concentration of teachers with "Less than a year" of teaching experience, accounting for 30 individuals or 76.92% of the group. This high percentage indicates a predominant presence of newcomers or those relatively new to teaching in early childhood education within the group. It suggests that a majority are at the very beginning of their teaching careers, possibly reflecting recent recruitment, a shift in career paths, or a surge in new entrants to the profession. Following this, a smaller segment of the group, 8 teachers or 20.51%, have "1-10 years" of teaching experience. This range captures those who have embarked on their teaching journey and have gained some level of experience in the field, though they still represent a considerably smaller proportion compared to the newcomers. Only a minimal number, 1 teacher or 2.56%, falls into the "11-20 years" of teaching experience category. This indicates a scarce representation of mid-career teachers within the group, highlighting a gap in the distribution of experience levels. Overall, data underscores a significant leaning towards less experienced teachers in early childhood education within this group, suggesting potential implications for professional development, mentorship, and support structures to nurture the proficiency and growth of these educators.

Table 6. Relevant Training and Seminars Attended

	Frequency	Rank
F. Relevant Trainings Attended		
INSET	30	1
Enhanced Kindergarten Blocks of Time	17	2
IPCRF Target Setting for Teachers	14	3

Table 6 outlines the frequency and ranking of relevant training and seminars attended by the teachers. INSET training leads the ranking with 30 attendees, positioning it as the most popular or required training among the educators. This suggests a high emphasis on continuous professional development through in-service training programs, highlighting its importance in maintaining and enhancing teaching quality. The Enhanced Kindergarten Blocks of Time seminar has seen 17 educators participate, ranking it second. This training likely focuses on innovative approaches or methodologies specific to kindergarten education, emphasizing the significance of targeted

educational strategies for early learners. Finally, the IPCRF Target Setting for Teachers seminar is attended by 14 individuals, making it the third-ranked training. This seminar appears to focus on goal-setting and performance evaluation for teachers, indicating a commitment to personal and professional growth, as well as accountability in teaching practices.

Table 7. Effectiveness of Digital Learning

#	Indicators	Mean	StDev	Description
1.	Digital learning provides greater flexibility in managing my study schedule.	3.18	0.39	Moderately Effective
2.	Access to a wide range of online courses is a significant advantage of digital learning.	3.62	0.49	Very Effective
3.	Digital learning is as effective as traditional classroom-based learning	3.11	0.31	Moderately Effective
4.	Digital learning allows me to learn at my own pace.	3.13	0.34	Moderately Effective
5.	The integration of multimedia (videos, simulations, etc.) enhances my understanding of the topics.	3.26	0.44	Very Effective
6.	Digital learning provides global networking and collaboration opportunities with other learners.	3.28	0.46	Very Effective
7.	The variety of online courses available through digital learning is beneficial.	3.54	0.51	Very Effective
8.	Digital learning offers opportunities for global networking and collaboration.	3.56	0.50	Very Effective
9.	I find digital learning more effective than traditional classroom-based learning.	3.05	0.46	Moderately Effective
10.	I face challenges with self-discipline and motivation while engaging in digital learning.	3.15	0.37	Moderately Effective
	Aggregate Mean:	3.29	0.43	Very Effective

Table 7 evaluates the effectiveness of digital learning. Notably, indicators such as the access to a wide range of online courses (mean=3.62), the variety of online courses available (mean=3.54), and opportunities for global networking and collaboration (mean=3.56) are rated as "Very Effective," showcasing the significant advantages of digital learning environments. Conversely, the perception of digital learning's comparability to traditional classroom-based learning receives a more moderate assessment, with means around 3.11 and 3.05, suggesting that while digital learning is valued for its flexibility and resources, there are reservations about its effectiveness relative to traditional methods on some fronts. Challenges related to self-discipline and motivation in digital learning environments are acknowledged (mean=3.15), indicating areas where digital learning can still improve. Despite these challenges, the aggregate mean of 3.29 points to an overall "Very Effective" rating for digital learning, suggesting a positive reception among participants. This data underscores the transformative potential of digital learning, while also

highlighting areas for enhancement, particularly in mimicking the engagement and accountability mechanisms inherent in traditional learning settings.

Table 8. Effectiveness of Module-based Learning

#	Indicators	Mean	StDev	Description
1.	Module-based learning allows for a more personalized learning experience.	2.95	0.61	Moderately Effective
2.	Module-based learning facilitates better understanding of complex topics.	2.87	0.70	Moderately Effective
3.	Module-based learning helps in retaining information for a longer duration.	2.64	0.81	Moderately Effective
4.	Module-based learning promotes active learning and engagement with course materials.	2.59	0.75	Moderately Effective
5.	Module-based learning allows for a more personalized learning experience.	2.56	0.55	Moderately Effective
6.	The flexibility of module-based learning enables better time management.	2.87	0.47	Moderately Effective
7.	I believe module-based learning is more effective in delivering course content.	2.77	0.48	Moderately Effective
8.	Module-based learning encourages active participation in the learning process.	2.77	0.78	Moderately Effective
9.	I encounter challenges in navigating between different modules and topics.	2.79	0.52	Moderately Effective
10.	Module-based learning provides accessible learning resources for all learners.	2.59	0.55	Moderately Effective
	Aggregate Mean :	2.74	0.62	Moderately Effective

The data presented in Table 8 explores the effectiveness of module-based learning across various indicators, revealing an overall consensus that it is moderately effective, with an aggregate mean of 2.74 and a standard deviation of 0.62. Specific indicators highlight the nuanced benefits and challenges associated with module-based learning. For instance, it is noted for enabling a more personalized learning experience, achieving means of 2.95 and 2.56, suggesting variability in how this personalization is experienced. Similarly, it facilitates a better understanding of complex topics (mean: 2.87) and assists in retaining information for longer durations (mean: 2.64). Active learning and engagement with course materials are also promoted (mean: 2.59), along with active participation in the learning process (mean: 2.77). The flexibility inherent in module-based learning is recognized for enhancing time management (mean: 2.87). Despite these benefits, challenges such as navigating between different modules and topics were acknowledged (mean: 2.79), indicating that while the approach is effective, there are areas requiring improvement to maximize its potential. Overall, the data suggests that module-based learning is a valuable educational strategy that, with some refinements,

could become even more effective in delivering course content and engaging learners.

Table 9. Effectiveness of Face-to-Face Teaching

#	Indicators	Mean	StDev	Description
1.	Face-to-face teaching facilitates better teacher-student interaction.	3.72	0.46	Very Effective
2.	The immediate feedback from teachers during face-to-face classes is beneficial for my learning.	3.74	0.50	Very Effective
3.	Face-to-face teaching helps in clarifying complex concepts effectively.	3.74	0.50	Very Effective
4.	The opportunity to participate in class discussions enhances my understanding of the subject matter.	3.69	0.52	Very Effective
5.	Face-to-face teaching promotes a more engaging and interactive learning environment.	3.77	0.49	Very Effective
6.	I prefer face-to-face teaching over online or remote learning methods.	3.80	0.41	Very Effective
7.	Face-to-face teaching helps me stay more focused and attentive during lectures.	3.59	0.55	Very Effective
8.	The use of visual aids (whiteboard, slides, etc.) in face-to-face classes enhances the learning experience.	3.56	0.55	Very Effective
9.	Face-to-face teaching allows for better networking and social interactions with peers.	3.77	0.43	Very Effective
10.	Face-to-face teaching may lead to time and resource constraints for both students and teachers.	3.51	0.51	Very Effective
	Aggregate Mean:	3.69	0.49	Very Effective

Table 9 delves into the effectiveness of face-to-face teaching, showcasing a strong preference for this traditional mode of instruction, as evidenced by an aggregate mean score of 3.69 and a standard deviation of 0.49, categorizing it as very effective. The indicators collectively highlight the multifaceted benefits of face-to-face interactions in the educational process. Notably, it excels in facilitating better teacher-student interaction (mean: 3.72), providing immediate feedback (mean: 3.74), and clarifying complex concepts effectively (mean: 3.74). These aspects are crucial for personalized learning experiences and immediate clarification of doubts, leading to a deeper understanding of the material. Moreover, the data points to the value of class discussions in enhancing subject matter comprehension (mean: 3.69) and underscores the engaging and interactive nature of face-to-face teaching environments (mean: 3.77). A strong preference for face-to-face teaching over online or remote learning methods is expressed (mean: 3.80), highlighting its importance in maintaining focus and attentiveness (mean: 3.59) and leveraging visual aids effectively (mean: 3.56). Additionally, it fosters better networking and social interactions among peers (mean: 3.77). However, the data also acknowledges

potential downsides, such as time and resource constraints (mean: 3.51), suggesting areas for improvement. Overall, the effectiveness of face-to-face teaching is reaffirmed, emphasizing its vital role in providing a dynamic, interactive, and effective learning experience.

Table 10. Relationship Between the Profile of the Respondents and the Level of Effectiveness of Digital Learning

Variables	Chi-Square	df	p-Value	Significance	Result
Age	4.999	3	0.172	Not significant	Ho accepted
Gender	0.880	1	0.348	Not significant	Ho accepted
Civil Status	1.368	2	0.505	Not significant	Ho accepted
Years of Service as School Head	2.576	3	0.462	Not significant	Ho accepted
Highest Educational Attainment	2.742	2	0.254	Not significant	Ho accepted
Years in Teaching EC	1.310	2	0.519	Not significant	Ho accepted

Table 10 presents an analysis of the relationship between various demographic and professional profile variables of respondents and the level of effectiveness of digital learning, employing the Chi-Square test to determine statistical significance. The variables examined include age, gender, civil status, years of service as a school head, highest educational attainment, and years in teaching early childhood (EC) education. Across all these variables, the findings indicate no statistically significant relationship with the effectiveness of digital learning. Specifically, age (Chi-Square = 4.999, df = 3, p-value = 0.172), gender (Chi-Square = 0.880, df = 1, p-value = 0.348), civil status (Chi-Square = 1.368, df = 2, p-value = 0.505), years of service as a school head (Chi-Square = 2.576, df = 3, p-value = 0.462), highest educational attainment (Chi-Square = 2.742, df = 2, p-value = 0.254), and years in teaching EC (Chi-Square = 1.310, df = 2, p-value = 0.519) all yielded p-values above the typical threshold of 0.05 for determining statistical significance. This suggests that these variables do not significantly affect how effective digital learning is perceived to be, leading to the acceptance of the null hypothesis (H0) for each.

Table 11. Relationship Between the Profile of the Respondents and the Level of Effectiveness of Module-Based Learning

Variables	Chi-Square	df	p-Value	Significance	Result
Age	16.318	6	0.012	Significant	Ho rejected
Gender	0.714	2	0.700	Not significant	Ho accepted
Civil Status	3.101	4	0.541	Not significant	Ho accepted
Years of Service as School Head	4.239	6	0.644	Not significant	Ho accepted
Highest Educational Attainment	1.788	4	0.775	Not significant	Ho accepted
Years in Teaching EC	1.964	4	0.742	Not significant	Ho accepted

The data presented in Table 11 explores the relationship between various demographic and professional profile variables of respondents

and the level of effectiveness of module-based learning. The Chi-Square test results reveal that most of the examined variables—Gender, Civil Status, Years of Service as School Head, Highest Educational Attainment, and Years in Teaching Early Childhood (EC)—show no significant relationship with the effectiveness of module-based learning, as evidenced by their respective p-values (Gender: 0.700, Civil Status: 0.541, Years of Service as School Head: 0.644, Highest Educational Attainment: 0.775, Years in Teaching EC: 0.742). These results led to the acceptance of the null hypothesis (Ho) for these variables, indicating that differences in these demographic or professional characteristics do not significantly affect perceptions of module-based learning's effectiveness. However, a notable exception is found with the variable of Age, which has a Chi-Square value of 16.318 and a p-value of 0.012, falling below the typical alpha level of 0.05 used to denote statistical significance. This result led to the rejection of the null hypothesis for Age, suggesting that there is a significant relationship between the age of respondents and their perceptions of the effectiveness of module-based learning. The implication is that age differences among respondents are likely to influence their views on the efficacy of this learning method, potentially due to varying degrees of comfort with, or attitudes towards, module-based learning across different age groups. This suggests that module-based learning can be a broadly applicable educational strategy, although its perceived effectiveness may vary with the age of the learner, indicating the need for age-sensitive approaches in its implementation.

Table 12. Relationship Between the Profile of the Respondents and the Level of Effectiveness of Face-to-Face Teaching

Variables	Chi-Square	df	p-Value	Significance	Result
Level of Effectiveness of Face-to-Face Teaching and					
Age	5.755	6	0.451	Not significant	Ho accepted
Gender	0.265	2	0.876	Not significant	Ho accepted
Civil Status	5.371	4	0.251	Not significant	Ho accepted
Years of Service as School Head	3.715	6	0.715	Not significant	Ho accepted
Highest Educational Attainment	1.701	4	0.791	Not significant	Ho accepted
Years in Teaching EC	4.703	4	0.319	Not significant	Ho accepted

Table 12 examines the relationship between various respondent profiles and the perceived level of effectiveness of face-to-face teaching, utilizing the Chi-Square test to analyze these relationships. Across all examined variables—Age, Gender, Civil Status, Years of Service as School Head, Highest Educational Attainment, and Years in Teaching Early Childhood (EC)—the results consistently show no significant relationship with the effectiveness of face-to-face teaching, as indicated by their p-values (Age: 0.451, Gender: 0.876, Civil Status: 0.251, Years

of Service as School Head: 0.715, Highest Educational Attainment: 0.791, Years in Teaching EC: 0.319). These findings lead to the acceptance of the null hypothesis for each variable, suggesting that differences in these demographic and professional characteristics do not significantly influence perceptions of the effectiveness of face-to-face teaching. This lack of significant relationship across all variables suggests that the effectiveness of face-to-face teaching is perceived similarly across various ages, genders, civil statuses, years of service as a school head, educational attainment levels, and years of teaching experience in early childhood. This could imply that the intrinsic benefits of face-to-face teaching, such as direct interaction, immediate feedback, and the richness of in-person communication, are recognized and valued across different demographics and professional backgrounds.

Conclusion

The findings present a comprehensive evaluation of the effectiveness of digital learning, module-based learning, and face-to-face teaching methods based on various indicators and the relationship between the profile of the respondents and the effectiveness of these learning methods. Digital learning was rated as very effective with an aggregate indicating that learners find significant advantages in terms of flexibility, access to a wide range of courses, the integration of multimedia for enhanced understanding, and global networking opportunities. Module-based learning received a moderately effective rating. It is appreciated for personalizing the learning experience and facilitating better understanding of complex topics, though it faces criticism for challenges in navigation between modules and a lower effectiveness in delivering course content compared to other methods. While, face-to-face teaching was rated the highest in effectiveness.

The statistical analysis of the relationship between the profile of the respondents and the effectiveness of these learning methods revealed that, generally, the variables like age, gender, civil status, years of service as a school head, highest educational attainment, and years in teaching early childhood (EC) education were not significantly related to the effectiveness of digital learning and face-to-face teaching. However, the age of the respondents showed a significant relationship with the effectiveness of module-based learning, indicating that age may influence perceptions of this learning method's effectiveness.

References

Agaton, C. B., & Cueto, L. J. (2021). Learning at Home: Parents' Lived Experiences on Distance Learning during COVID-19 Pandemic in the

Philippines. International Journal of Evaluation and Research in Education, 10(3), 901-911.

Dishon, G., & Gilead, T. (2021). Adaptability and its discontents: 21st-century skills and the preparation for an unpredictable future. British Journal of Educational Studies, 69(4), 393-413.

Fontanos, N., Gonzales, J. F., Lucasan, K., & Ocampo, D. S. (2020). Revisiting flexible learning options (FLOs) in basic education in the Philippines: Implications for senior high school (SHS). UP CIDS Education Research Program.

Frutas, M. L. (2023). Breaking the Mold: How Pre-Service Teachers' Learning Styles Are Revolutionizing Teaching and Learning.

Imran, R., Fatima, A., Salem, I. E., & Allil, K. (2023). Teaching and learning delivery modes in higher education: Looking back to move forward post-COVID-19 era. The International Journal of Management Education, 21(2), 100805.

Jalongo, M. R. (2021). The effects of COVID-19 on early childhood education and care: Research and resources for children, families, teachers, and teacher educators. Early childhood education journal, 49(5), 763-774.

Lennox, J., Reuge, N., & Benavides, F. (2021). UNICEF's lessons learned from the education response to the COVID-19 crisis and reflections on the implications for education policy. International Journal of Educational Development, 85, 102429.

McKay, V., & Mabunda, P. L. (2022). Online Learning and the Pedagogy of Resilience, Agency and Protest: Lessons from the COVID-19 Experience. In Transformative Education for Regeneration and Wellbeing: A Critical Systemic Approach to Support Multispecies Relationships and Pathways to Sustainable Environments (pp. 291-308). Singapore: Springer Nature Singapore.

Quintos, C. A., Caballes, D. G., Gapad, E. M., & Valdez, M. R. (2020). Perceptions of teachers on the different strains of online modalities of learning: an adoption to new normal. integration, 3, 4.

Reimers, F. M. (2021). In search of a twenty-first century education renaissance after a global pandemic. Implementing deeper learning

and 21st century education reforms: building an education renaissance after a global pandemic, 1-37.

Sanger, C. S. (2020). Inclusive pedagogy and universal design approaches for diverse learning environments. Diversity and inclusion in global higher education: Lessons from across Asia, 31-71.

Singh, J., Steele, K., & Singh, L. (2021). Combining the best of online and face-to-face learning: Hybrid and blended learning approach for COVID-19, post vaccine, & post-pandemic world. Journal of Educational Technology Systems, 50(2), 140-171.

Simamora, R. M. (2020). The Challenges of online learning during the COVID-19 pandemic: An essay analysis of performing arts education students. Studies in Learning and Teaching, 1(2), 86-103.

Tus, J. (2021). Amidst the online learning in the Philippines: the parental involvement and its relationship to the student's academic performance. International Engineering Journal for Research & Development, 6(3), 1-15.

Ulzheimer, L., Kanzinger, A., Ziegler, A., Martin, B., Zender, J., Römhild, A., & Leyhe, C. (2021). Barriers in Times of Digital Teaching and Learning--A German Case Study: Challenges and Recommendations for Action. Journal of Interactive Media in Education, 2021(1).

Walid, A. L. L. I. O. U. A., & Imane, B. E. N. K. O. U. I. T. E. N. (2023). Blended Learning: Associating Types of Learners' Learning Styles with Their Preferred In-person and Online Learning Activities (Doctoral dissertation, university center of abdalhafid boussouf-MILA).

