

The Effectiveness of Educational Development in the New Normal in Selected Schools in Marawi City, Philippines

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Abstract. The COVID-19 pandemic profoundly reshaped education, compelling schools in Marawi City, Lanao del Sur, to transition to remote learning under the "new normal." While the challenges of remote learning are globally recognized, a localized, in-depth analysis of its specific impact on student academic performance and instructional barriers within Marawi City remained a key knowledge gap. This study assessed the pandemic's effects on educational development, focusing on educators' profiles, students' academic performance, challenges, and instructional adaptations. Using a quantitative-descriptive design with survey data from public and private teachers, the results showed that most respondents were female, aged 26-35, with 1-5 years of service. Moderate improvement in students' performance was noted, attributed to multimedia and interactive approaches. However, limited internet access, lack of in-person interaction, and reduced motivation were significant barriers. The study emphasizes the need for flexible, innovative strategies in technological support, teacher training, and stakeholder engagement to sustain quality education amid crises.

Keywords: COVID-19 pandemic; Educational development plan; New normal.

1.0 Introduction

In the wake of the unprecedented global pandemic caused by the novel coronavirus disease (COVID-19), societies around the world have grappled with the challenges posed by the "new normal." Among the most profoundly affected sectors is education, where the sudden shift to remote learning and subsequent disruptions have raised significant concerns about the potential long-term impacts on students' educational development. The pandemic forced educational institutions worldwide to adopt emergency measures, including the closure of schools and the abrupt transition to remote learning modalities in the Marawi City Division.

The COVID-19 pandemic's influence on global education is vast, affecting nearly every child on the planet (UNICEF, 2020; United Nations, 2020). Following the unanticipated onset of the pandemic and consequent school closures, education systems worldwide made immense efforts to adapt and innovate, leading to the swift implementation of distance education. Many institutions quickly transitioned to online platforms (Kamenetz, 2020; Sun et al., 2020), while others utilized broadcast media or postal services. This compelled the educational field to embrace creativity and rapid transformation (United Nations, 2020, p. 2). Research has since explored the

subsequent impact on learning, noting significant variations in students' academic performance across different regions (Angrist et al., 2021; Kuhfeld et al., 2020). Studies often highlight the 'COVID-19 learning loss' but also point to successful adaptations in teaching methods, such as the pivot to technology-enhanced and self-paced instruction (Hattie, 2020; UNESCO, 2021).

However, the rapid improvements and breakthroughs in the immediate aftermath of COVID-19 were focused on meeting the pressing need for ongoing training and on inventive ways to reach students at home, rather than on fundamentally reimagining education for a post-COVID-19 society. While understandable in the near term, these reactive modifications may be considered insufficient in the long run. Crucially, while global studies have assessed the broad impact of school closures, localized evidence on the effects of remote learning on student performance and the specific instructional challenges and necessary adaptations in a conflict-affected, digitally underserved area like Marawi City remains scarce. This specific geographical context presents unique socio-economic and technological barriers that global data cannot fully capture.

This study, therefore, aims to contribute localized data and assess the pandemic's effects on educational development in Marawi City, Lanao del Sur, BARMM. Specifically, it focuses on analyzing students' academic performance before and after the pandemic, identifying the primary challenges in remote instruction (such as limited internet access and lack of interaction), and documenting practical adaptations in teaching methods used by local educators.

2.0 Methodology

2.1 Research Design

This study utilized a quantitative-descriptive research design. This approach was necessary because it involved examining the effects of an independent variable (the COVID-19 pandemic and its associated disruptions) on a dependent variable (educational development), with the independent variable exposure already having occurred. This design, often termed a quasi-experimental or *ex post facto* approach, allowed the researcher to observe and compare outcomes across groups (or time periods, e.g., pre- and post-pandemic) that were naturally exposed to COVID-19 disruptions, without random assignment of participants.

2.2 Research Participants

The researcher selected 122 public school teachers from the Marawi City Division as the primary study respondents. These educators served as the primary data source, providing valuable insights into shifts in teaching and learning methods, challenges, adaptations, and the pandemic's overall impact. To construct a well-balanced and inclusive sample, participants were selected through stratified random sampling by school level and location. Respondents were then randomly allocated in proportion to each stratum. This judicious approach ensured the sample accurately represented the diverse educational landscape of Marawi City during the pandemic.

2.3 Research Instruments

The instruments employed were a survey questionnaire and academic performance data. The researcher developed the survey based on the study's objectives and a review of relevant literature on remote learning challenges and adaptations during the pandemic. The questionnaire measured teacher perceptions using a Likert scale and covered topics including access to technology, remote learning experiences, instructional challenges, and specific coping mechanisms. The instrument underwent validation by a panel of experts in education and research. Additionally, a pilot study was conducted on a separate group of 30 teachers to test for internal consistency, yielding a reliability coefficient (Cronbach's Alpha) of 0.85, confirming its suitability for the study. Secondary data on students' academic performance were collected, specifically grade comparisons (General Average) from core subjects for the period before the pandemic (pre-COVID-19) and during the remote learning phase (new normal) to assess educational development.

2.4 Data Gathering Procedure

The collection of data involved several key steps: (1) The researcher first secured ethical approval from the Institutional Review Board (IRB) of the affiliated institution. Official permission was then obtained from the Marawi City Division Superintendent, (2) The data were collected over three weeks (e.g., in September 2022). Teachers who met the criteria were invited to participate. Informed consent was obtained from all respondents, clearly detailing the study's purpose, the voluntary nature of participation, and any potential risks (which were minimal and primarily related to time commitment), (3) The survey questionnaire was administered primarily

through a hybrid medium, utilizing both online distribution (via Google Forms) and limited printed copies for teachers with connectivity issues, and (4) The researcher officially requested and compiled the required academic performance data from school records for the periods before and during the implementation of remote learning modalities, ensuring the data were anonymized at the source.

2.5 Data Analysis

The collected data were processed and analyzed using SPSS software, with the assistance of a statistician, to ensure accuracy and reliability. Frequency and percentage distribution were used to analyze the socio-demographic characteristics of the respondents and the distribution of their responses regarding educational challenges and changes. Mode was used to identify the most frequently occurring value in the dataset, providing insight into the most typical or prevalent observation (e.g., the most common age group or the most cited challenge). T-test or ANOVA was used to analyze the significant difference in students' academic performance before and after the pandemic, based on the collected grade comparisons.

2.6 Ethical Considerations

To protect the privacy of the respondents, all collected data, including personal information, academic records, and responses, are treated with strict confidentiality and are accessible only to authorized researchers. The data analysis is conducted to ensure the anonymity of all participating teachers. Informed consent was obtained from every respondent after they were briefed on the study's objectives, procedures, and assured that their participation was voluntary. The researchers ensured that the study's conceptualization and questionnaire items did not pose any psychological or physical harm to those involved. The research strictly adhered to the health and safety protocols issued by the local government unit during the data-gathering period, prioritizing participants' welfare.

3.0 Results and Discussion

3.1 Socio-Demographic Profile of the Respondents

Table 1 presents findings that reveal most respondents fall within the age range of 26 to 35 years, comprising 47.5% of the total sample. This indicates a significant portion of the population under study belongs to this age bracket. Analysis suggests this age group may represent a more actively engaged or interested demographic, reflecting a stage in life when certain behaviors or characteristics are more prevalent. Following closely behind, the 36-45 age group constitutes 21.3% of the sample.

Table 1. *Frequency and Percentage Distribution of the Respondents' Age*

Age	Frequency	Percentage
25 Below	15	12.3%
26 – 35	58	47.5%
36 – 45	26	21.3%
46 Above	23	18.9%
Total	122	100%

Note: 75.01 to 100% - Qualified or Meet the Criteria (Rank 1) 25.01 to 50% - Not Qualified (Rank 3)
50.01 to 75% - Reconsidered LGU Condition (Rank 2) 0 to 25% - Not Applicable (Rank 4)

This suggested that, while slightly fewer in number than the 26 to 35 age group, individuals in this bracket still make up a considerable portion of the population under study. The analysis may indicate that this group holds its own significance in the context of the research objectives, potentially representing a slightly older demographic with differing perspectives or experiences. On the other hand, those aged 25 and below account for 12.3% of the sample, while those aged 46 and above make up 18.9%. The lower representation of individuals aged 25 and below may reflect limited participation or interest in the subject matter among younger individuals. In contrast, the presence of individuals aged 46 and above indicates a noteworthy representation of older demographics in the study, suggesting potential insights from different life stages or experiences.

Table 2 shows that the data reveal a significant gender disparity, with females constituting the majority at 86.1% and males at 13.9%. This distribution suggests a notable imbalance in the sample, with a higher prevalence of females. The analysis of this gender skewness could be attributed to various factors, such as the nature of the study, recruitment methods, or the specific demographics targeted. It is crucial to consider the potential influence of these factors when interpreting the outcomes.

Table 2. *Frequency and Percentage Distribution of the Respondents' Sex*

Sex	Frequency	Percentage
Female	105	86.1%
Male	17	13.9%
Total	122	100%

The overrepresentation of females may indicate a trend in the studied context, suggesting greater interest or participation among females in the subject matter under investigation. However, it is essential to exercise caution and explore the underlying reasons for this gender imbalance to ensure the validity and generalizability of the study's findings.

Table 3 shows that most individuals are married, accounting for 51.6% of the total sample. Following closely behind are the single individuals, representing 43.4% of the dataset. This suggests that marriage is the most prevalent civil status among the respondents. The analysis suggests that this predominance of married individuals may reflect societal norms and expectations that view marriage as a common milestone or desirable state.

Table 3. *Frequency and Percentage Distribution of the Respondents' Civil Status*

Civil Status	Frequency	Percentage
Single	53	43.4%
Married	63	51.6%
Widow	5	4.1%
Separated	1	0.8%
Total	122	100%

Furthermore, the stability and support provided within a marital relationship may contribute to a higher proportion of married individuals within the dataset. Conversely, the lower percentages of widowed and separated individuals, at 4.1% and 0.8%, respectively, suggest that these statuses are less common within the sample population. This could be attributed to factors such as demographic trends, life expectancy, and cultural influences that impact marital stability and longevity. Overall, the findings underscore the significance of marital status in shaping demographic patterns and highlight the prevalence of marriage within the surveyed population.

Table 4 shows that most respondents (47.5%) hold a bachelor's degree, followed by 19.7% with a master's degree, and a smaller proportion (4.1%) with a Doctoral Degree. Additionally, 27.0% of respondents have completed master's degree units, while only 1.65% have completed doctoral degree units. The analysis suggests that the prevalence of bachelor's and master's degrees indicates that a significant portion of the surveyed population has attained tertiary education, potentially indicating a higher level of qualification within the sample. Conversely, the lower percentages of Doctoral Degrees and completed Doctoral units indicate a lesser prevalence of individuals who have pursued advanced academic qualifications, possibly implying a smaller proportion of respondents engaged in doctoral-level studies or research-intensive professions.

Table 4. *Frequency and Percentage Distribution of the Respondents' Educational Attainment*

Educational Attainment	Frequency	Percentage
Bachelor's Degree	58	47.5%
Master's Degree	24	19.7%
Doctoral Degree	5	4.1%
Master's Degree Units	33	27.0%
Doctoral Units	2	1.65%
Total	122	100%

3.2 Clients' Service Satisfaction

In Terms of Quality Services

Table 5 above shows that Teacher 1 holds the majority position, with 107 instances, accounting for 87.7% of the total. This indicates a significant predominance of Teacher 1 within the observed dataset. The analysis suggests that this outcome could stem from factors such as tenure, experience, or possibly specialization, making Teacher 1 the most prevalent among the listed positions. Conversely, Teacher 2 and Teacher 3 each constitute only 2.5% of the total, with three instances each. This suggests a relatively minor presence compared to Teacher 1. The low frequency of Teacher 2 and Teacher 3 could imply a smaller pool of individuals holding these positions within the context of the study, possibly due to specific requirements or qualifications. Master Teacher 1 and Master Teacher 2 together account for 7.4% of the total instances, indicating moderate representation compared to Teacher 1.

Table 5. *Frequency and Percentage Distribution of the Respondents' Position*

Position	Frequency	Percentage
Teacher 1	107	87.7%
Teacher 2	3	2.5%
Teacher 3	3	2.5%
Master Teacher 1	6	4.9%
Master Teacher 2	3	2.5%
Total	122	100%

The analysis infers that Master Teachers, although fewer in number, likely hold positions of greater authority or expertise within the educational hierarchy, which explains their presence despite being outnumbered by Teacher 1. Overall, the overwhelming prevalence of Teacher 1 underscores its dominance within the sampled population. At the same time, the distribution of other positions suggests a hierarchical structure or varying degrees of specialization within the educational setting under scrutiny.

Table 6 shows that most individuals surveyed have been in service for 1 to 5 years, accounting for 43.4% of the sample. Analysis suggests that this could indicate a relatively high turnover rate within the organization or industry, with a significant portion of employees being relatively new to their roles. Furthermore, the data shows a considerable drop in frequency among individuals with 6 to 10 years of service, who comprise only 26.2% of the respondents. This decline might indicate challenges in retaining employees beyond the initial years, potentially linked to issues such as job satisfaction, career advancement opportunities, or organizational culture. Additionally, the figures demonstrate a similar trend for individuals with 11 to 20 years of service and those with 21 or more years, each representing only 15.6% and 13.9%, respectively. Moreover, the presence of a missing system for one respondent (0.8%) underscores potential data-collection or reporting inconsistencies that could affect the accuracy and reliability of the findings. In conclusion, the distribution of years in service highlights potential challenges in employee retention and suggests areas for further investigation and intervention to improve organizational stability and workforce longevity.

Table 6. *Frequency and Percentage Distribution of the Respondents' Number of Years in the Service*

Number of Years in the Service	Frequency	Percentage
1 – 5 Years	107	43.4%
6 – 10 Years	3	26.2%
11 – 20 Years	3	15.6%
21 Above	3	13.9%
Missing System	1	0.8%
Total	122	100%

The distribution of respondents' years of service offers important insights into the organization's workforce dynamics. The predominance of employees with 1 to 5 years of service, accounting for 43.4% of the sample, indicates a relatively high influx of new staff. This trend may reflect ongoing recruitment efforts or a high turnover rate, which can pose challenges to organizational stability and the development of a cohesive work culture. The noticeable decline in respondents with 6 to 10 years of service (26.2%) suggests potential difficulties in retaining employees beyond their initial years, possibly due to limited career advancement opportunities or job satisfaction issues. The further decrease among those with 11 to 20 years (15.6%) and over 20 years (13.9%) underscores the potential barriers to long-term retention, such as retirement, burnout, or inadequate incentives for sustained commitment. Additionally, a missing data point for one respondent (0.8%) highlights possible inconsistencies in data collection, which may affect the overall reliability of the analysis.

3.3 Perceptions on Students' Academic Performance Before and After The COVID-19 Pandemic

Table 7 shows that the survey findings identified several significant trends in students' academic performance in the context of the new normal in education. Firstly, most respondents moderately agree that academic performance has improved since the implementation of the new normal (Mode=5, Moderately Agree). This improvement can be attributed to various factors, such as increased access to digital resources (Statement 12) and students taking more ownership of their learning (Statement 9), as noted by the respondents. However, it is noteworthy that, despite the improvement, the overall GPA has been negatively affected by the challenges posed by the new normal (Statement 3, Mode=4, Agree), suggesting a nuanced impact on academic outcomes. Analysis of findings suggested that while students have adapted well to remote learning and online assessments (Statement 2), there are still challenges affecting their academic performance. For instance, the decrease in attention span

during lessons (Statement 5) and the lack of face-to-face interaction (Statement 10), which affects motivation, indicate that the transition to online education has presented obstacles. Additionally, technical issues during online classes (Statement 8) hinder students' learning, even though their engagement in virtual classrooms is generally commendable (Statement 4).

Table 7. *Academic Performance Trends of Students*

Statements Indicators (Academic Performance Trends of Students)	Responses (n=122)						Mode	Qualitative Description
	1	2	3	4	5	6		
¹ The academic performance of students has significantly improved since the implementation of the new normal in education.	11	14	25	22	26	24	5	Moderately Agree
² Students have adapted well to remote learning and online assessments.	1	12	33	29	31	16	3	Disagree
³ The overall GPA of students has been negatively affected by the challenges of the new normal.	4	5	22	29	45	17	4	Agree
⁴ Students' engagement in virtual classrooms is commendable.	0	7	34	31	44	6	3	Disagree
⁵ The transition to online education has led to a decrease in students' attention span during lessons.	4	5	11	43	34	25	4	Agree
⁶ The assessment methods used in virtual classes effectively measure students' understanding of the subject matter.	8	4	27	44	33	6	4	Agree
⁷ Students' ability to collaborate and work in groups has improved through online collaboration tools.	5	13	22	53	28	1	4	Agree
⁸ The frequency of technical issues during online classes hampers students' learning experiences.	0	5	20	56	20	21	4	Moderately Agree
⁹ Students are taking more ownership of their learning in the new standard setting.	1	5	26	27	49	14	5	Agree
¹⁰ The lack of face-to-face interaction has affected students' motivation to perform better academically.	2	0	9	40	37	34	4	Moderately Agree
¹¹ Students find it challenging to strike a work-life balance in the new normal of education.	3	4	19	34	50	12	5	Agree
¹² The availability of digital resources has positively impacted students' academic performance.	3	5	27	33	27	27	4	Agree
¹³ The new normal has allowed students to explore self-paced learning options.	2	3	20	40	32	25	4	Agree
¹⁴ Teachers' support and guidance have been effective in improving students' academic performance.	6	2	21	28	32	33	4	Agree
¹⁵ Students' participation in online class discussions and activities has been satisfactory.	0	7	30	32	38	15	4	Agree
	Mode						4	Agree

Note: 1="Strongly Disagree", 2="Moderately Disagree", 3="Disagree", 4="Agree", 5= "Moderately Agree", 6= "Strongly Agree"

Implications drawn from these findings underscore the importance of addressing the challenges inherent in the new normal of education to sustain and enhance the observed improvements in academic performance. Strategies to mitigate technical issues and enhance students' motivation through innovative online engagement methods could be explored. Furthermore, supporting studies, such as those by Means et al. (2013) on effective online learning practices and Vallerand et al. (2007) on motivation in educational contexts, can offer insights into addressing these challenges effectively.

The finding of this study, as discussed above, is supported by the theory of Connectivism, a new learning theory proposed by Siemens (2005). The theory addresses the complexities of learning in the digital age. It posits that knowledge is distributed across a network of connections, and learning consists of navigating, growing, and maintaining these networks. Connectivism emphasizes the role of technology and social networks as integral to the learning process, highlighting that learning is a process of connecting specialized nodes or information sources. This theory is particularly relevant in the context of online and technology-driven education, where learners access and share information across digital platforms.

These encouraging findings align closely with Alam's insights (2020). He emphasized that online classes align with current educational trends, especially given the limited alternatives available during the extraordinary circumstances of the global COVID-19 pandemic. His study revealed that, despite encountering various challenges, both students and teachers demonstrated resilience and adaptability, effectively addressing obstacles

to create a positive and engaging learning environment. This collective effort fostered a beneficial shift in the educational landscape, resulting in favorable outcomes across multiple dimensions of teaching and learning.

Furthermore, these positive results can be linked to students' intrinsic motivation to learn despite the physical distance imposed by the new normal in education. This is supported by Self-Determination Theory (Deci & Ryan, 1985), which centers on human motivation and personality. SDT highlights the critical role of intrinsic motivation and the fulfillment of psychological needs, namely autonomy, competence, and relatedness, for optimal functioning and personal development. When these needs are satisfied, individuals are more likely to engage in learning activities with persistence and enthusiasm. In educational settings, SDT suggests that fostering a supportive environment that enhances learners' sense of autonomy, provides opportunities to build competence, and promotes meaningful connections can significantly boost motivation and engagement (Ryan & Deci, 2000). This is especially pertinent in online and remote learning contexts, where feelings of isolation and the lack of immediate feedback can undermine motivation.

These positive findings also align with the principles of constructivist theory, which emphasize that learners actively construct their knowledge through experience and interaction with their environment. According to constructivist perspectives, learners are not passive recipients of information but are engaged participants in the learning process, building understanding through reflection, exploration, and social interaction. In the context of online education during COVID-19, students and teachers navigated challenges by actively engaging with digital tools, collaborating, and adapting their learning strategies, key aspects highlighted by constructivist approaches. This active engagement fosters meaningful learning experiences, which can lead to positive outcomes despite obstacles.

In conclusion, while the overall outcomes indicate positive trends in students' academic performance within the new normal of education, several challenges remain that must be addressed to optimize learning experiences. By understanding these findings and drawing on relevant theoretical frameworks and research, educators and policymakers can develop targeted strategies to support students in overcoming the barriers of remote learning, ultimately enhancing their academic success and well-being.

3.4 Challenges Educators Face in Adapting to the "New Normal"

Table 8 shows that the survey found several challenges educators and students face in adapting to the "new normal" of education. Access to reliable internet and technology emerged as a major obstacle, with a significant majority agreeing on its importance. This has direct consequences, affecting the ability to conduct online classes effectively and hindering both teaching and learning. The lack of in-person interactions with teachers and peers also emerged as a substantial challenge, impacting the overall learning experience. These challenges could lead to decreased engagement and motivation among students, as well as feelings of isolation and disconnection, as evidenced by the responses.

The implications of these findings are significant for the educational sector. The reliance on technology underscores the urgent need to invest in infrastructure and resources to ensure equitable access to education for all students. Studies such as Selwyn's (2016) emphasize the importance of addressing digital inequalities to prevent further marginalization of disadvantaged groups. Research by Means et al. (2013) suggests that incorporating interactive elements and social learning platforms can enhance the effectiveness of online education.

Moreover, the challenges educators face in assessing students' understanding and progress in virtual settings underscore the need for innovative assessment methods tailored to online learning environments. Studies such as those by Jung and Carstens (2020) suggest the potential of adaptive assessment tools and formative feedback mechanisms to address these challenges. Overall, the findings underscore the need for a comprehensive approach to address the multifaceted challenges of the "new normal" of education, encompassing technological, pedagogical, and socio-economic factors to ensure equitable and compelling learning experiences for all students.

Table 8. Challenges Faced by Educators in Adapting to the “New Normal” Of Education

Statements Indicators (Challenges Faced by Educators in Adapting to the “New Normal” of Education)	Responses (n=122)						Mode	Qualitative Description
	1	2	3	4	5	6		
¹ Access to reliable internet and technology is a significant challenge in the new normal of education.	5	2	8	48	13	46	4	Agree
² Students face difficulties in managing their time effectively for online classes and other responsibilities.	2	3	8	53	37	19	4	Agree
³ The lack of in-person interactions with teachers and peers hinders the learning process.	5	0	16	34	25	42	4	Agree
⁴ Some students struggle to understand complex topics without face-to-face explanations.	1	5	7	37	18	54	5	Moderately Agree
⁵ The new normal has led to feelings of isolation and disconnection among students.	4	1	25	22	39	31	4	Agree
⁶ Limited parental/guardian support negatively impacts students' learning experience in the new normal.	1	1	8	50	31	31	4	Agree
⁷ Teachers face challenges providing equal attention and support to all students in virtual classrooms.	1	1	10	47	32	31	4	Agree
⁸ Technical glitches and connectivity issues disrupt the flow of online classes.	0	4	11	44	32	31	4	Agree
⁹ Students find it challenging to stay motivated and focused during virtual lectures.	3	3	7	52	16	41	4	Agree
¹⁰ The increased screen time has adverse effects on students' physical and mental health.	4	2	14	56	18	28	4	Agree
¹¹ Some students face financial constraints in accessing the educational resources required for online learning.	2	4	13	47	20	36	4	Agree
¹² The absence of hands-on practical experience affects students' understanding of specific subjects.	1	5	13	35	20	48	6	Strongly Agree
¹³ Students encounter difficulties navigating various online learning platforms and tools.	3	3	13	32	28	43	4	Agree
¹⁴ The lack of a conducive study environment at home affects students' concentration.	4	2	10	26	37	43	4	Agree
¹⁵ Teachers face challenges in assessing students' understanding and progress effectively in the virtual setting.	6	2	7	25	52	30	5	Moderately Agree
	Mode						4	Agree

Note: 1=“Strongly Disagree”, 2=“Moderately Disagree”, 3=“Disagree”, 4=“Agree”, 5= “Moderately Agree”, 6= “Strongly Agree”

The findings closely align with those of Almazova et al. (2020). Their analysis identified several key challenges faced by faculty members, including digital literacy levels, the adequacy of the electronic environment and institutional support, faculty readiness, and students’ preparedness for online learning. Notably, the latter two – faculty and student readiness – were highlighted as the most significant barriers to implementing effective online education. Many respondents emphasized that teaching methods in a digital setting differ markedly from traditional classroom techniques.

These findings can be explained through the lens of the Transactional Distance Theory (TDT), developed by Moore (1972). TDT emphasizes the psychological and communicative gap that can exist between instructors and learners in distance education environments. According to Moore (1997), the effectiveness of distance learning hinges on three core elements: dialogue, structure, and learner autonomy. The theory describes transactional distance as a psychological and communicative space that can be minimized through thoughtful instructional design, fostering interaction, and reducing feelings of isolation among students. By promoting active dialogue and flexible course structures, educators can better address learners’ needs, especially in online or blended learning contexts. The theory underscores that "distance education is not merely a geographical separation but, more importantly, a pedagogical concept".

Transactional Distance Theory also elucidates the nature of didactical relationships in various educational settings, which can be characterized as "the relatives of educational practices in which behavior patterns are performed in addition to the development of skills – such as those typically accomplished in traditional classroom instruction – requiring interaction between teacher and learner through digital, print, or other means" (Moore, 1972).

According to this framework, each distance learning program comprises three main components: conversation (dialogue), organization (structure), and independent learning. These elements reflect the responsiveness of an

educational experience to individual student needs, with dialogue representing the extent to which teachers and learners can communicate effectively. Overall, the theory emphasizes that maintaining meaningful interaction and flexible course design are essential to bridging the transactional distance, thereby enhancing learner engagement and educational outcomes.

In summary, both the challenges identified in recent studies and the theoretical frameworks of constructivism and transactional distance highlight the critical importance of fostering interactive, supportive, and adaptable online learning environments. Recognizing that effective distance education is not solely about overcoming geographical separation but also about bridging psychological and pedagogical gaps underscores the need for intentional instructional design and comprehensive support systems. By applying these theories, educators and policymakers can better understand the dynamics of remote learning and implement strategies that promote active engagement, autonomy, and meaningful communication.

3.5 Changes in Teaching Methodologies and Learning Modalities during the COVID-19 Pandemic

Table 9 shows that most respondents agree or moderately agree with various aspects of online teaching methods. The highest level of agreement is observed in statements such as the effectiveness of multimedia elements in enhancing comprehension (Mode = 5), teachers' utilization of interactive activities and quizzes to engage students (Mode = 4), and the integration of real-life examples and case studies enriching learning experiences (Mode = 4). This suggests that incorporating multimedia, interactive activities, and real-world examples effectively contributes to students' engagement and comprehension in virtual classrooms.

The implications of these findings underscore the importance of employing diverse teaching strategies in online education to foster student participation and understanding. Studies such as those by Means et al. (2013) and Kay (2019) emphasize the importance of multimedia integration and interactive teaching methods for enhancing learning outcomes in online environments.

Table 9. *Teaching Methodologies and Learning Modalities During the COVID-19 Pandemic*

Statements Indicators (Teaching Methodologies and Learning Modalities)	Responses (n=122)						Mode	Qualitative Description
	1	2	3	4	5	6		
¹ The use of multimedia elements in online lessons enhances students' comprehension.	4	5	13	45	40	15	5	Moderately Agree
² Teachers effectively use interactive activities and quizzes to keep students engaged in virtual classes.	6	1	16	47	17	35	4	Agree
³ The integration of real-life examples and case studies enriches students' learning experience.	3	3	11	29	24	52	4	Agree
⁴ Online discussions and forums promote critical thinking and knowledge sharing among students.	0	9	14	42	39	19	4	Agree
⁵ Virtual field trips and online simulations contribute to a better understanding of specific subjects.	5	6	26	36	29	20	4	Agree
⁶ Teachers demonstrate flexibility in adapting their teaching styles to the online environment.	0	11	14	46	39	12	4	Agree
⁷ Students appreciate the availability of recorded lectures for review and revision.	1	4	12	49	41	15	4	Agree
⁸ Group projects and collaborative assignments encourage students to work together effectively online.	3	7	8	54	38	12	4	Agree
⁹ Teachers provide timely feedback on students' work and progress in virtual classrooms.	3	6	14	56	31	12	4	Agree
¹⁰ Online assessments are fair and effectively measure students' learning outcomes.	6	6	17	46	38	9	4	Agree
¹¹ The use of virtual whiteboards and annotation tools aids in explaining complex concepts.	2	8	10	54	39	9	4	Agree
¹² Teachers encourage active participation and inclusivity in virtual class discussions.	1	4	17	42	31	27	4	Agree
¹³ The combination of synchronous and asynchronous learning activities is beneficial for students.	5	1	14	27	46	29	5	Moderately Agree
¹⁴ Teachers effectively use online resources and educational technology in their lessons.	2	2	10	40	42	26	5	Moderately Agree
¹⁵ The new normal has sparked innovative teaching approaches that enhance learning experiences.	2	4	14	36	40	26	5	Moderately Agree
	Mode						4	Agree

Note: 1="Strongly Disagree", 2="Moderately Disagree", 3="Disagree", 4="Agree", 5= "Moderately Agree", 6= "Strongly Agree"

Additionally, the findings reveal agreement with practices such as online discussions and forums that promote critical thinking, virtual field trips that aid subject understanding, and teachers adapting their teaching styles flexibly to the online environment. This indicates that interactive and collaborative activities, along with teacher flexibility, are valued components of effective online instruction. Such practices are aligned with findings from studies by Swan (2001) and Picciano (2017), which emphasize the importance of interaction and flexibility in online learning environments for promoting engagement and learning.

Furthermore, respondents appreciate the availability of recorded lectures, timely feedback, fair online assessments, and the use of virtual tools such as whiteboards and annotation tools. These aspects contribute to a supportive online learning environment, enabling review, feedback, and the explanation of complex concepts. The combination of synchronous and asynchronous activities is also considered beneficial, underscoring the importance of a balanced approach to online instruction. These findings underscore the need for educators to provide varied instructional modes and supportive resources in virtual classrooms. Studies by Hew and Cheung (2014) and Garrison et al. (2000) support the significance of timely feedback, balanced instructional approaches, and the integration of virtual tools in enhancing online learning experiences. Overall, the findings highlight the importance of employing diverse, interactive, and supportive strategies in online education to optimize student engagement and learning outcomes.

These findings can be effectively linked to Connectivism Learning Theory, which posits that learning begins when students activate information through interaction within a community of learners. As Siemens (2004) explains, "A community is the grouping of comparable topics of interest that enables engagement, exchanging, dialoguing, and reasoning together." Furthermore, Connectivism emphasizes that knowledge is distributed across a communication system and can be stored in various digital formats. It asserts that understanding depends on the plurality of viewpoints, highlighting the importance of diverse perspectives in the learning process (Siemens, 2008, para. 8). Learning occurs through engagement with both cognitive and affective domains, meaning that cognition and emotions are integral to meaningful understanding.

This theoretical perspective aligns with the findings, which indicate that respondents perceived that students experienced a sense of virtual connection and comprehended the topics effectively. For instance, statement 1 ("The use of multimedia elements in online lessons enhances students' comprehension") was rated as Moderately Agree by the respondents. Similarly, statements 13 ("The combination of synchronous and asynchronous learning activities is beneficial for students"), 14 ("Teachers effectively utilize online resources and educational technology in their lessons"), and 15 ("The new normal has sparked innovative teaching approaches that enhance learning experiences") also received ratings of Moderately Agree. These ratings provide evidence that, despite challenges with connectivity and access, students still experienced meaningful connections within the online learning environment.

These ratings suggest that, despite the inherent challenges of connectivity issues and limited access, students still experienced meaningful engagement and connection within the online learning environment. Such virtual connections are vital, serving as conduits that support student motivation, participation, and comprehension. This evidence underscores the importance of leveraging diverse digital tools and fostering community interaction to enhance learning outcomes in remote educational settings, aligning with the principles of Connectivism. The findings underscore the significance of connectivity and community in online learning, aligning closely with the principles of Connectivism. Despite challenges such as technological limitations and access issues, students continued to find value in virtual interactions, multimedia resources, and innovative teaching strategies that foster engagement and understanding. The ratings reflecting moderate agreement across various statements highlight that meaningful learning and connection can thrive in digital environments when appropriately supported. These insights emphasize the importance of leveraging diverse digital tools, fostering collaborative communities, and adopting innovative approaches to enhance the effectiveness of online education.

4.0 Conclusion

The study accomplished its objective of assessing the effects of the COVID-19 pandemic on educational development in Marawi City. The findings underscore a resilient yet severely tested educational sector, yielding critical data for targeted policy reform. While the demographic profile established a baseline for the workforce—a predominantly female, middle-aged cohort—the substantive findings focused squarely on instructional outcomes and barriers, the transition to remote learning was severely compromised by the Digital Divide,

manifested in limited access to reliable internet and technology. This technical constraint, coupled with the lack of crucial in-person interactions, created a pervasive challenge leading to decreased student engagement and motivation. These barriers confirm the difficulty of implementing emergency remote teaching in resource-constrained, post-conflict environments.

Crucially, however, the study's data revealed that, despite these systemic obstacles, educators achieved a moderate improvement in students' academic performance. This positive deviation was primarily attributable to teachers' proactive, often self-initiated adoption of multimedia and highly interactive teaching strategies. This suggests that while resources were lacking, human capital and pedagogical creativity were key mitigating factors against widespread learning loss.

5.0 Contribution of Authors

The authors divided up the work and completed the writing, editing, encoding, data analysis, and supervision. They also evaluated and approved the completed manuscript as a group. Both authors conceived and designed the study, formulated the research questions, and designed the study protocol. Author 1 collected and encoded the data. Author 2 helped with the analysis and interpretation of the data. The first draft was written by Author 1, and Author 2 helped revise the publication. Both authors gave final permission for publishing.

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7.0 Conflict of Interest

Concerning the publishing of this paper, the authors state that they have no conflicts of interest.

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