

Primary Teachers Adoption of Technology: A Study of Change Management Strategies in the Digital Transformation in Basic Education

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Abstract: Change management strategies and approaches in basic education serve as an important role in the adoption of technology of primary teachers towards digital transformation. Participants were chosen using convenience sampling within public and private primary schools in Calaca, Batangas. The study used a correlational research design to determine the existence and degree of relationship between primary teachers' sex, age, socio-economic status, and number of years in teaching to their level of adoption of new technologies in embracing change in the educational setting. To further describe and quantitatively investigate the data, percentage, median, and chi-square test of association were used. Findings revealed that primary teachers were predominantly females, mid-young adults, categorized under poor income class, with 5 years and below teaching experience, and were very proficient with the use of technology. Primary teachers assessed that they strongly agree with integrating technology in primary education. Primary teachers evaluated that they highly adopted new technologies in the educational setting. Primary teachers' sex, age, socio-economic status, and number of years in teaching lacked enough evidence to establish that there are significant correlations between primary teachers' demographic profile and their level of adoption of new technologies in embracing change in the educational setting. The principals perceived that the integration of technology, future of primary education can be much more efficient with the collective help and effort of the Department of Education, local government, teachers, parents, community, and students.

Keywords: Adoption of Technology; Digital Transformation; Change Management Strategies; Basic Education.

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I. INTRODUCTION

Digital transformation has become a catalyst for change in various industries, and basic education is no exception. With the rapid advancement of technology, basic education has started to embrace digital transformation to reshape the way knowledge is imparted, accessed, and utilized from using digital textbooks to implementing blended learning where online classes have been considered as a modality of education.

Teachers are among the first ones to shape students, they may successfully prepare students for the digital age and enhance basic education by embracing technology. Teachers can leverage online databases and digital libraries to enrich their teaching materials and provide students with diverse perspectives and up-to-date content. Technology

offers a wide range of opportunities for innovative and engaging teaching methods. This access to global resources enhances the quality and relevance of education, it also makes it easier to make data-driven decisions and encourages lifelong learning and professional growth (Moore et al., 2023).

With digital devices and online platforms, students can go beyond traditional textbooks and explore a wealth of information where they can gain more knowledge. By leveraging technology, primary teachers can create dynamic and interactive lessons tailored to individual student's needs, fostering a more customized and engaging learning environment. Utilizing digital devices in education offers a variety of benefits for both teachers and students (Goel & Sharma, 2023).

The integration of technology in primary education can help teachers provide students with early proper exposure to the tools and skills they will need in their future careers. Familiarity with technology from an early age, with the right supervision and guidance, ensures that students are not just consumers but creators in the digital world, ready to meet the demands of an ever-evolving job market.

However, successful integration of technology in primary education requires the active participation and support of the teachers. Large numbers of faculty members are still reluctant to adopt technology for teaching tasks as some educators find technological tools and platforms to be complex and challenging to navigate.

To completely utilize the potential of technology in education, we must tackle the obstacles that schools encounter when integrating technology in classrooms, addressing training requirements, and ensuring scalability. Various strategies and approaches exist to optimize the advantages of technology adoption for both students and teachers. Strategies provide a roadmap or plan for faculty members to follow when integrating technology into their teaching practices. They offer clear guidelines and steps to help educators navigate the process effectively. It also ensures that technology adoption aligns with the goals, objectives, and priorities of the institution and its educational mission. They help faculty members understand how technology fits into the broader educational context and supports learning outcomes.

The evolution of educational curriculum and methods has faced various challenges, including the integration of new and traditional approaches. One significant hurdle is digital literacy, a global issue impacting individuals of all ages. Despite hopes that the problem would naturally diminish with the proliferation of technology, it persists.

Therefore, this research study investigates the strategies and approaches of basic education's change management towards digital transformation and facilitating primary teachers' adoption of technology. The findings of this study aim to provide insights to educational leaders and policymakers on the best practices for supporting primary teachers in embracing technological advancements in basic education.

A. Statement of the Problem

The purpose of this study is to investigate the strategies and approaches of basic education's change management towards digital transformation and facilitating primary teachers' adoption of technology in education to provide insights to educational leaders and policymakers on the best change management practices that better support primary teachers in embracing technological advancements in basic education. Hence, the study is guided by the following research questions:

- What is the demographic profile of the respondents in terms of:
 - ✓ Sex
 - ✓ Age
 - ✓ Socio-economic status
 - ✓ Number of years in teaching
 - ✓ Technology proficiency
- What is the respondents' perspective towards technology integration in primary education?
- What is the respondents' level of adoption of new technologies in embracing change in the educational setting?
- Does the respondents' level of adoption of new technologies in embracing change in the educational setting significantly correlate to their demographic profile?
- What interventions and support systems can be proposed to enhance the successful integration of technology in primary education?

B. Significance of the Study

The present study investigates the strategies and approaches of basic education's change management towards digital transformation in primary education and facilitating primary teachers' adoption of technology in the educational setting, it brings relevance and benefits to the proponents of this system. Specifically, it benefits the following:

- Primary Teachers. The study can provide insights and guidance to primary teachers, helping them to make the most of technology in their teaching practices. The study can offer a solid understanding of what approaches can better prepare primary teachers for adopting and using technology in classrooms that can foster students' active participation and boost their interest in learning through technology-inclined learning activities.
- School Administrators. Educational leaders, principals, and school administrators can benefit from understanding what key factors influence primary teachers' adoption of technology in their teaching practices to enhance the institution's change management strategies towards digitally transforming basic education. The study can provide insights on the decision-making and resource allocation of schools that better support their teachers in incorporating technology in their teaching practices.
- DepEd (Department of Education). As policymakers in the field of education, the study can provide guidance to the development of policies that promote technology integration and digital transformation in primary education such as developing a technology-inclusive curriculum fit for students in primary education and developing technology-inclined professional development programs for teachers on handling and navigating digital materials to ensure that teachers and students can keep up with new trends of education.

- Students. The effect of better change management strategies in digitally transforming basic education and facilitating primary teachers' adoption of technology can benefit even the students in learning from a more engaging and enjoyable educational environment. The integration of technology in primary education can leverage students' knowledge across different subject areas, be more engaged in class discussions, develop their digital skills and literacy, and become responsible internet users.
- LGU (Local Government Unit). The study can provide insights to the local government unit in establishing a comprehensive vision for integrating technology and digitally transforming basic education. The objective of this vision is to raise digital literacy and bridge the digital divide in communities, enhance educational outcomes, and prepare both teachers and students for the needs of the workforce in the 21st century. The investment to educational technology can strengthen the foundation of a better community towards societal development through digitalization.
- Parents. By understanding how teachers are incorporating technology in classrooms, parents can gain knowledge about innovative teaching methods that they can also use to teach their children at home. This can allow parents to better engage with their children's educational experiences. Additionally, parents can gain insights into how technology is managed and supervised in schools, which can guide their discussions with their children about online safety and responsible technology use.
- Future Researchers. The findings of this study can be used as a reference or guide by future researchers who wish to conduct the same or any study related to the change management strategies and adoption of technology in basic education. Researchers can use the study to evaluate the effects of change management strategies towards digitally transforming basic education and teachers' adoption of technology on student learning results. Future research can focus on various technologies and how they affect student engagement, motivation, and academic accomplishment, offering a more nuanced knowledge of how technology and learning are related.

C. Theoretical Framework

The Unified Theory of Acceptance and Use of Technology (UTAUT) suggests that the actual utilization of technology is determined by behavioral intention (Marikyan & Papagiannidis, 2023). The theory presents four key constructs that the perceived likelihood of adopting technology is dependent upon. Namely, performance expectancy, effort expectancy, social influence, and facilitating conditions. Furthermore, the effect of these predictors is moderated by the user's age, gender, experience, and voluntariness of use.

In the context of this study, performance expectancy suggests that teachers may find the digital transformation useful due to wider and easier access to information and other resources. Effort expectancy suggests that primary teachers may adopt technology in their teaching strategies if they perceive that adopting it will not cause them more difficulty. Social influence suggests that institutions, colleagues, or students may influence primary teachers to adopt technology in their teaching strategies and is more likely to be significant when the adoption of technology is mandated. Lastly, facilitating conditions suggests that primary teachers may adopt technology if they perceive that the institution has the necessary resources and support, such as trainings and seminars, as well as proper equipment and stable technology infrastructure to integrate digital transformation in the institution. The strength of the predictors is affected by an individual's age, gender, experience, and voluntariness of use. The theory states that gender affects the relationships between performance expectancy, effort expectancy, and social influence. Experience affects the strength of the relationships between social influence, facilitating conditions, and effort expectancy. Voluntariness of use affects only the relationship between social influence and behavioral intention. For this study, the variables of the Unified Theory of Acceptance and Use of Technology (UTAUT) model were modified with variables being considered in the present study.

In the present study, interventions and support systems are derived from one of the key constructs of the UTAUT model, facilitating conditions. Thus, we define interventions and support systems as the institution's capability to provide training, mentorship, guidance, structural and technical support, resource allocation, and feedback and evaluation to assist primary teachers in integrating technology into their teaching practices, and therefore, affecting primary teachers' level of adoption, perspective, and technology proficiency. Level of adoption is another variable derived from the key constructs of the UTAUT model, voluntariness of use. Thus, it is defined in the study as the level of willingness of primary teachers to adopt technology in their teaching practices. Perspective is defined as the attitudes, beliefs, and perceptions of primary teachers towards technology integration in embracing change in basic education. Technology proficiency is defined as the level of digital literacy and skills, as well as awareness of technological tools of primary teachers in the educational setting. Moreover, demographic profile is defined as the sex, age, socio-economic status, and number of years in teaching of primary teachers as factors moderating their level of adoption, perspective, and proficiency in technology, thus, may influence their adoption of technology in the educational setting.

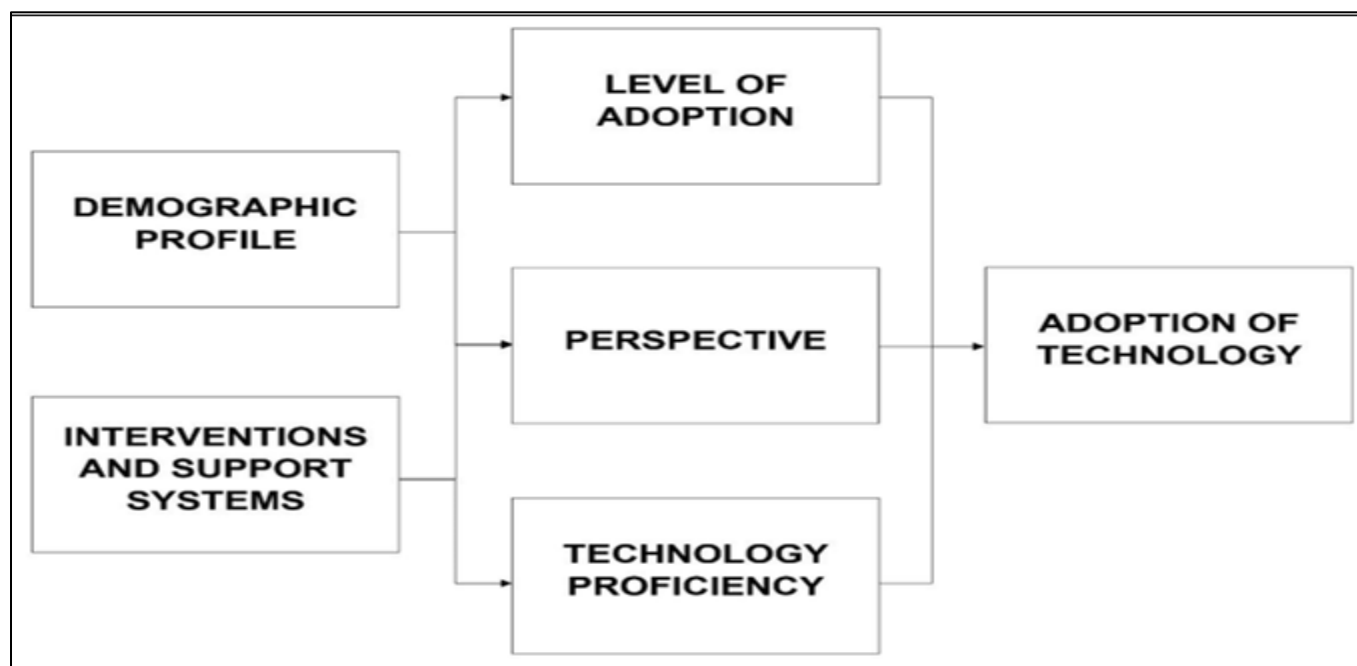
D. Paradigm of the Study

Fig 1: Paradigm of the Study

II. METHODS*A. Research Method Used*

The researcher followed a mixed-method approach in the study. The approach was selected to align with and fulfill the goals of the research which focused on both numbers and qualitative variables measured in organized investigation, wherein it involves measuring phenomena and exploring their connections in a structured manner. Mixed-method approach involves the collection and analysis of both quantitative and qualitative data within a single study. By leveraging the strengths of both methods, researchers can dive into diverse viewpoints and uncover intricate relationships in their research questions. This approach necessitates intentionally blending methods in data collection, analysis, and interpretation.

Since the mixed method analyzes both quantitative and qualitative research, it is the best fit for the present study. This allows the study to expand its comprehensive understanding of the research problem under investigation. Qualitative methods help to explore nuances, context, and underlying meanings, while quantitative methods provide statistical data and allow for generalization (McKim, 2017). Survey research and correlational design were utilized due to the multifaceted nature of the factors influencing primary teachers' adoption of technology in embracing change towards digital transformation in basic education.

The main objective of the present study is to investigate the strategies and approaches of basic education's change management towards digital transformation and facilitating primary teachers' adoption of technology. The research aims to confirm whether primary teachers' demographic characteristics influence their level of adopting technology in the educational setting.

B. Population Frame and Sampling Scheme

The participants in the study are teachers and principals of public and private primary schools within Calaca, Batangas. Survey questionnaires and pen-and-paper interviews were distributed to primary schools within Calaca, Batangas. Convenience sampling was used in the collection of data in the present study as it involves using the first available source of data without specific criteria that is difficult to find (Babbie, 2021). In this case, any teacher and principal can be found in the primary schools of Calaca city. Due to regulations regarding the conduct of surveys and interviews within school premises requiring a formal letter to be presented to the principal, and the availability of teachers to be surveyed and principals to be interviewed were harder to request, the sample size of the present study proved to be small. In the end, a total of 54 primary teachers and 16 school principals participated in the study.

C. Scope and Delimitations

The study took place in selected public and private primary schools within Calaca, Batangas. The data collection was conducted on primary teachers and principals, during the second semester of the Academic Year 2023-2024. Certain variables such as school culture and atmosphere, existing access to resources, student characteristics, government policies and regulations, peer influence, time constraints, and unforeseen events that may otherwise influence primary teachers' adoption of technology in the educational setting and principals' perceptions about interventions and support systems towards enhancing the successful integration of technology in primary education were excluded in the present study to control the variables being considered.

D. Research Instruments Used

Survey questionnaires were used and obtained information from primary teachers' demographic profile, perspective towards technology integration in primary education, and level of adoption of new technologies in embracing change in the educational setting. A pen-and-paper interview was given to principals and obtained information about their perception with the interventions and support systems that enhanced the successful integration of technology in primary education.

- **Technology Proficiency.** The Technology Proficiency questionnaire was designed to assess primary teachers' level of proficiency and digital literacy in technological tools in the educational setting. Teachers' responses to each statement in the questionnaire were evaluated using a 4-point Likert scale, wherein 1 indicates "not proficient" and 4 indicates "very proficient". The questionnaire was presented to a group of experts who validated the instrument. The construction of the instrument was investigated if each statement measures the construct that it intends to measure. Suggestions and comments made to the questionnaire were incorporated into its final form. The reliability of the questionnaire was obtained by pretesting it to 25 primary teachers whose characteristics were similar to the actual primary teacher respondents. Upon checking, the Cronbach alpha was 0.885 thus, acceptable.

Perspective towards Technology Integration in Primary Education. This assessed the perspective of primary teachers towards integrating technology in primary education. The responses from these teachers in the questionnaire were evaluated using a 4-point Likert scale, wherein 1 indicates "strongly disagree" and 4 indicates "strongly agree". The Perspective towards Technology Integration in Primary Education questionnaire was validated the same way the Technology Proficiency questionnaire was validated. Experts checked the surface appearance of the instrument and investigated if the statements can measure what it is intended to measure. Minor revisions were provided by the experts and their suggestions and comments were taken into consideration and incorporated into the construction of the final form of the instrument. The reliability of the instrument was obtained through the responses of the 25 pretest primary teachers. The results of the statistics revealed a Cronbach alpha of 0.936.

Level of Adoption of New Technologies in Embracing Change in the Educational Setting. This questionnaire was designed to determine primary teachers' level of adopting new technologies in embracing change towards digital transformation in basic education. The responses from these teachers in the questionnaire were evaluated using a 4-point Likert scale, where in 1 indicates "not adopted" and 4 indicates "highly adopted". Experts in Basic Education validated the questionnaire, their suggestions and comments were taken into consideration and were included in the final construction of the questionnaire. The reliability of the test was computed by selecting 25 primary teachers

to answer the questionnaire. Upon statistical analysis, the Cronbach alpha was 0.939.

E. Statistical Tests Used

To properly analyze and interpret the data gathered in the survey, certain statistical tests were used in the present study. Percentage was used to show the proportion of the primary teachers with respect to their demographic characteristics. Median was used to show the middle value response of primary teachers in each of the questions incorporated into the instrument. Specifically, it was used to determine the middle value response of primary teachers' perspective towards technology integration in primary education and their level of adoption of new technologies in embracing change in the educational setting. Lastly, the Chi-Square Test of Association was used to determine whether primary teachers' descriptive characteristics were significantly correlated to their level of adoption of new technologies in embracing change in the educational setting.

F. Data Gathering Procedure

The researchers developed a questionnaire to gather the demographic profile and measure primary teachers' technology proficiency, perspective on technology integration, and their level of adoption of new technologies. Validated by educators and statisticians, the questionnaire underwent revisions and was pretested on 25 teachers in Pasig City. A reliability analysis led to the removal of irrelevant items. Additionally, a pen-and-paper interview was created to capture principals' views on enhancing technology integration in basic education. For data collection, researchers obtained necessary permissions with a formal letter signed by their research adviser. The researchers submitted these letters to the principals in Calaca, and with their consent, conducted surveys and interviews, resulting in 54 survey responses and 16 interview answers.

III. RESULTS AND DISCUSSION

A. Descriptive Statistics of Respondents

The table displays the descriptive statistics of respondents. The findings revealed that females dominated the study sample with 31 (57.41%) respondents while the male respondents are 23 (42.59%). 16 (29.63%) of the respondents fall under the age bracket of 25–29 categorized as Mid-young Adult, 10 (18.52%) of respondents are within 18–24 years of age categorized as Young Adult, 10 (18.52%) of other respondents are within 36–44 years of age categorized as Early Middle Adult, another 10 (18.52%) of respondents fall under the age bracket of 45–54 categorized as Mid-Middle Adult, and 8 (14.81%) of respondents are within 30–35 years of age categorized as Late Young Adult. Most primary teachers in the present study have a monthly income of less than ₱12,000 classified under poor with 26 (48.15%).

Followed suit with 19 (35.19%) of respondents under the lower-middle income class with a monthly income between ₱24,101 to ₱48,300. While 8 (14.81%) respondents fall under low-income class earning between ₱12,001 to ₱24,100 per month. Those who have been teaching for 5 years and below have responded the most in the present study with 25 (46.29%), followed by 16

(29.63%) primary teachers who have been teaching above 5 to 10 years. There are 9 (16.67%) primary teachers who have been teaching above 10 to 15 years, and 4 (7.41%) primary teachers who have been teaching above 15 to 20 years. Most of the respondents are very proficient in technology with 39 (72.22%), followed by respondents under proficient with 14 (25.93%). poor with 26 (48.15%).

Table 1: Descriptive Statistics of Respondents

Variables	Categories	Frequency	Percentage
Sex	Male	23	42.59
	Female	31	57.41
Age	18–24	10	18.52
	25–29	16	29.63
	30–35	8	14.81
	36–44	10	18.52
	45–54	10	18.52
Socio-economic status	Less than ₱12,000	26	48.15
	₱12,001-₱24,100	8	14.81
	₱24,101-₱48,300	19	35.19
Number of years in teaching	5 years and below	25	46.29
	Above 5 to 10 years	16	29.63
	Above 10 to 15 years	9	16.67
	Above 15 to 20 years	4	7.41
Technology proficiency	Very proficient	39	72.22
	Proficient	14	25.93

Table 1. The descriptive statistics of respondents suggest that the primary teachers were predominantly females, mid-young adults, categorized under the poor income class, with 5 years and below teaching experience, and very proficient with the use of technology.

B. Perspective of Primary Teachers towards Technology Integration in Primary Education

The table presents responses to statements about primary teachers perspective towards technology integration in primary education. The median obtained from male teachers is 4 indicating that they strongly agree with integrating technology in primary education. For female teachers, the median obtained is 4 as well, indicating that they also strongly agree with integrating technology in primary education.

Respondents in the age range of 18 to 24 obtained a median of 4, implying that young adult teachers strongly agree with integrating technology in primary education. Respondents with ages ranging from 25 to 29, 30 to 35, and

36 to 44, also obtained a median of 4, indicating that primary teachers who are mid-young, late young, and early middle adults also strongly agree with integrating technology in primary education. While respondents with the age range of 45 to 54 obtained a median of 3.50 which still falls in the verbal interpretation of strongly agree.

Respondents under poor, low income, and lower middle-income class obtained a median of 4, indicating that they strongly agree of implementing technology in primary education. Teachers with 5 years and below teaching experience obtained a median of 4, indicating that they strongly agree with the integration of technology in primary education. Similarly, teachers with above 5 to 10 years, and teachers with above 10 to 15 years of teaching experience also obtained a median of 4 indicating that they also strongly agree with integrating technology in primary education. Teachers with above 15 to 20 years of teaching obtained a median of 3.50 falling also in the verbal interpretation of strongly agree.

Table 2: Perspective of Primary Teachers towards Technology Integration in Primary Education

Variables	Categories	Median	Verbal Interpretation
Sex	Male	4	SA
	Female	4	SA
Age	18–24	4	SA
	25–29	4	SA
	30–35	4	SA
	36–44	4	SA
	45–54	3.5	SA
Socio-economic status	Less than ₱12,000	4	SA

Number of years in teaching	₹12,001-₹24,100	4	SA
	₹24,101-₹48,300	4	SA
	5 years and below	4	SA
	Above 5 to 10 years	4	SA
	Above 10 to 15 years	4	SA
	Above 15 to 20 years	3.5	SA

Legend: (SA) Strongly Agree, (A) Agree, (D) Disagree, (SD) Strongly Disagree

Table 2. The findings suggest that there was no significant difference between the male and female teachers regarding their perspective of adopting technology in educational settings. Teachers generally have positive views on integrating technology into their teaching practices because they believe that using technology enhances instructional methods, making learning more engaging and interactive and keep students motivated (Akram et al., 2022). Teachers' age has also not shown to have a notable influence on their use of technology in educational settings. Since the integration of technology in education has begun, regardless of age, teachers have acknowledged its utilization as an effective means to teaching and learning (Tahir & Arif, 2016).

Many studies have examined the socio-economic status factor of students or schools and their influence on technology adoption in the educational setting. However, few studies have investigated the socio-economic factor of teachers and their influence on teachers' technology adoption in primary education. In contrast to the findings, Nodeh & Shahini (2021) investigated teachers' socioeconomic status and their acceptance and use of technology, their findings of which reveal a positive and significant relationship. There is a need to further investigate on primary teachers' socio-economic status as a factor to be considered to their influence on adopting technology in the educational setting.

C. Primary Teachers' Level of Adoption of New Technologies in Embracing Change in the Educational Setting

The table presents responses to statements about primary teachers' level of adoption of new technologies in embracing change in the educational setting. Male teachers obtained a median of 4, indicating that they highly adopt new technologies in embracing change in the educational setting, similarly, female teachers also highly adopt new technologies in the educational setting as indicated by the median 4 they obtained. The results suggests that regardless of sex, primary teachers highly adopt technology in embracing change in the educational setting. All categories of age obtained a median of 4, indicating that all primary teachers may highly adopt new technologies in embracing change in the educational setting.

Similarly, all categories of socio-economic status obtained a median of 4, indicating that primary teachers may highly adopt new technologies in embracing change in the educational setting. Moreover, all categories of years in teaching obtained a median of 4, indicating that primary teachers may highly adopt new technologies in embracing change in the educational setting regardless of their number of years in teaching.

Table 3: Primary Teachers' Level of Adoption of New Technologies in Embracing Change in the Educational Setting

Variables	Categories	Median	Verbal Interpretation
Sex	Male	4	HA
	Female	4	HA
Age	18–24	4	HA
	25–29	4	HA
	30–35	4	HA
	36–44	4	HA
	45–54	4	HA
	45–54	4	HA
Socio-economic status	Less than ₹12,000	4	HA
	₹12,001-₹24,100	4	HA
	₹24,101-₹48,300	4	HA
Number of years in teaching	5 years and below	4	HA
	Above 5 to 10 years	4	HA
	Above 10 to 15 years	4	HA
	Above 15 to 20 years	4	HA

Legend: (HA) Highly Adopted, (A) Adopted, (SA) Slightly Adopted, (NA) Not Adopted

Table 3. The findings reveal that teachers' sex does not have a notable influence on their technology adoption in their teaching practices (Akram et al., 2022). Teachers also generally hold positive opinions about technology use in education and found no significant age differences

regarding teachers' adoption of technology (Papadakis, 2018).

Teachers from different socio-economic areas (high income, medium income, low income) were aware of innovative educational practices with the use of technology, they perceived that these were useful in enhancing student learning and actively incorporated them into their teaching practices which indicated that regardless of the socio-economic status of their schools and region, teachers found technology useful and adopted them (Duman & İşerî, 2022). The importance of primary teachers' socio-economic status as a factor that may influence their level of adopting new technologies in the educational setting should be explored as very few studies consider its impact on teachers' technology adoption. As teachers play a crucial role in providing quality education to students, their ability to adapt to rapidly advancing technologies for teaching and learning is a must to successfully integrate technology in education, teachers consider themselves competent in technology and adopted it in their classrooms regardless of their length of years in teaching (Çoklar & Yurdakul, 2017).

D. Relationship between Primary Teachers' Demographic Profile and Level of Adoption of New Technologies in Embracing Change in the Educational Setting

The table displays the association between primary teachers' demographic profile and their level of adoption of new technologies in embracing change in the educational setting. It can be seen from the table that primary teachers' number of years in teaching ($cv = 0.366$, $p = 0.065 > 0.05$) is moderately correlated to their level of adoption of new technologies in embracing change in the educational setting. However, its significance is greater than the 0.05 critical value, thus, there is not enough evidence to reject the null hypothesis in the present study that states there are no significant correlations between primary teachers' level of adoption of new technologies in embracing change in the educational setting and their demographic profile. Consequently, primary teachers' sex ($cv = 0.002$, $p = 0.988 > 0.05$), age ($cv = 0.237$, $p = 0.552 > 0.05$), and socio-economic status ($cv = 0.078$, $p = 0.954 > 0.05$) have a weak correlation to their level of adoption of new technologies in embracing change in the educational setting, and have p-values greater than the 0.05 level of significance.

Table 4: Relationship between Primary Teachers' Demographic Profile and Level of Adoption of New Technologies in Embracing Change in the Educational Setting

Demographic Profile	$\chi^2 - value$	Cramer's V	Degree of Relationship	p-value	Interpretation
Sex	0.00	0.002	Weak	0.988	Not Significant
Age	3.04	0.237	Weak	0.552	Not Significant
Socio-economic status	0.33	0.078	Weak	0.954	Not Significant
Number of years in teaching	7.22	0.366	Moderately Strong	0.065	Not Significant

Table 4. The results, therefore, do not have enough evidence to reject the null hypothesis of the present study that there were no significant correlations between primary teachers' level of adoption of new technologies in embracing change in the educational setting and their demographic profile. Other studies have also indicated that teachers' demographic profile were not significantly correlated to their level of technology adoption in the educational setting (Tweed, 2013; Keržič, et al., 2021).

IV. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

Based on the findings of the study several conclusions were drawn. The primary teachers in this study were predominantly young women, typically in their mid-twenties to early thirties. Many came from economically disadvantaged backgrounds, which often influenced their teaching environments and resources. The primary teachers expressed strong agreement on integrating technology in education, highlighting its potential to enhance learning experiences, engage students, and improve digital literacy. They recognize the ultimate benefits of using tools like interactive tablets, and educational software, which can make lessons more dynamic and accessible. Additionally, teachers may dive into how technology facilitates personalized learning and fosters collaboration among students, preparing them for a tech-driven world.

The primary teachers assessed that they highly adopt new technologies, demonstrating a proactive approach to embracing change in the educational setting. This adoption reflects their commitment to enhancing teaching and learning processes. They leverage tools such as learning management systems, educational apps, and online resources to create more interactive and engaging classrooms. There was not enough evidence in the present study to suggest that teachers' adoption to technology is influenced by their demographic profile, there may also be other factors which play a more vital role in influencing teachers' technology adoption in primary education.

Principals perceived that the interventions and support systems needed to enhance the successful integration of technology were comprehensive professional trainings that incorporate technology into the pedagogical practices of teachers, provision and funding of sufficient technology resources, and therefore, having equitable access for all teachers and students, a free and secure internet connectivity within school grounds, continuous feedback and evaluation of teachers' integration of technology in their pedagogical practices, the assistance of the Department of Education and the local government, as well as the active participation and support of the community and parents of the students towards a successful technology integration in primary education.

In summary, this study examined strategies and approaches of basic education's change management towards digital transformation and in facilitating primary teachers' adoption of technology in embracing change in the educational setting. The respondents involved were teachers and principals in primary schools around Calaca City, Batangas. The study findings revealed that most of the teachers expressed strong support in the integration of technology inside classroom premises and highly adopt new technologies in embracing change in the educational setting. The present study also lacked enough evidence to reject the study's null hypothesis that there were no significant correlations between primary teachers' level of adoption of new technologies in embracing change in the educational setting and their demographic profile. Principals also perceived that with the integration of technology for future of primary education could be more efficient with the collective help and effort of the Department of Education, local government, teachers, parents, community, and students.

B. Recommendations

➤ *Classroom Application*

The primary teachers that go through technology-inclined trainings, seminars, and workshops aimed to enhance their knowledge and skills in technology use, may apply their gained knowledge in the classrooms, facilitate active participation of students in the use of technology through innovative and creative learning activities to boost the students' interest in learning and open their minds to explore the opportunities offered by technology, and properly guide the students on responsible and ethical technology use, online safety, and digital privacy.

➤ *Sufficient Resources*

The School Administrators may coordinate with the Department of Education (DepEd), the Local Government Unit (LGU), Non-Government Organizations (NGOs), and private organizations to donate sufficient resources such as computers, tablets, internet connectivity, hardware, and software to support the integration of technology in schools. School administrators may collaborate with technology experts and educational organizations for the development of a stable and reliable technology infrastructure, online educational materials, learning management systems, digital libraries, and online repositories to widen the accessibility of a variety of knowledge for teachers and students, as well as provide administrative support for teachers who may struggle with adopting technology into their teaching strategies and ensure the equitable access to resources for all teachers and students.

➤ *Technology-inclined Programs*

The Department of Education (DepEd) may provide comprehensive technology-inclusive professional development trainings, seminars, and workshops for teachers towards integrating technology into their pedagogical practices, providing instruction on how to handle and navigate digital materials and modify teaching

strategies to make the most of technology and to ensure that teachers are able to keep up with new trends of education. The DepEd may aid in the provision and funding of technology resources to ensure that schools, especially across underserved areas, have fair access. The DepEd may assist educational leaders in developing curriculum guidelines and standards that incorporates technology across subject areas to ensure that the use of technology is aligned with the learning materials, outcomes, and educational goals relevant to students in primary education.

➤ *Student Engagement*

The students may take advantage of the resources provided by the schools to widen their knowledge across different subject areas, develop their basic digital skills and literacy, learn about online safety and responsible use of technology on the internet, gain more knowledge through interactive learning tools such as educational apps and games, and participate in class discussions using interactive whiteboards. Additionally, students who excel in using technology may share their knowledge with other students through peer collaboration to advance other students' knowledge and proficiency in using technology.

➤ *Government Assistance*

The Local Government Unit (LGU) may provide government assistance along with the Department of Education, local organizations, and individuals interested in the advancement of technology in basic education, to fund schools by allocating budgets in the expenses of purchasing technology devices such as computers, tablets, interactive whiteboards, and provide up-to-date software and stable network infrastructure. The local government may offer subsidies to schools for technology initiatives, projects, and programs such as one-to-one (which pair each one student with one computer, tablet, or laptop to use in the classroom), technology-inclined professional training for teachers, and development of students' digital literacy and skills.

➤ *Parent and Community Engagement*

The parents may actively engage, support, and guide their children in the proper use of technology in education. This ensures that as students learn and become proficient in using technology victims of digital addiction or dependency, and are not at risk with their privacy and security online. Parents may coordinate with schools and teachers on the process of their children's use of technology in learning, set healthy screen time, guide students in navigating the internet, and select beneficial and educational digital resources that boost their children's learning experience in a fun and safe way.

➤ *Ongoing Research and Data Collection*

The future researchers studying the strategies and approaches of basic education's change management towards digital transformation in primary education are encouraged to prioritize collecting data about the intrinsic and extrinsic factors influencing primary teachers' adoption of technology, various technologies that may affect primary teachers' technology adoption and student engagement and

change management practices for which the evidence is not yet robust.

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