



## Information and Communication Technology Tools (ICT) in Teaching History and Geography in a Catholic School

Dr. Froilan D. Mobo, FRIEDr

<https://orcid.org/0000-0002-4531-8106>

Associate Professor

G-SPACE, Columban College Inc., Olongapo City

**Abstract-** *ICT assimilation into teaching and learning among schools will magnify the understanding of subject matters. ICT is a teaching and learning tool, and different approaches to learning define ICT differently. For the Objectivist approach, ICT is a new subject matter, new skills that need to be learned by students. At present, hardly anybody can do without the use of information and communication technologies (ICT). They have undoubtedly penetrated in all spheres of human life. Therefore, the purpose of the present study was to discuss to type and use of ICT Tools in various courses and evaluated the discernment on the usage of ICT Tools in teaching the courses in a Catholic school setting. The researcher used a descriptive cross-sectional design. It was conducted in a Catholic school. The research instruments used to collect data included questionnaires for teachers and students were purely quantitative data and were processed using descriptive statistics. The Use of ICT tools in the teaching of History or Geography helps the teacher a lot in preparing and delivering the lesson to their students. However, the effective integration of ICT may be affected by several other concerns or factors*

**Keywords:** *ICT tools, Geography, History, Catholic school, teaching*

### INTRODUCTION

A researcher (Capuk, 2015), supposed that ICT assimilation into teaching and learning among schools will magnify the understanding of subject matters. He further connotes that Information and Communication Technologies (ICT) is not a clear-cut academic subject like history, mathematics, or literature; because it has not secured a domain in the school curriculum like other subject areas because ICT is a new academic subject or ICT is a teaching and learning tool, and different approaches to learning define ICT differently. For the Objectivist approach, ICT is a new subject matter, new skills that need to be learned by students.

Amidst reports that there was very little integration of Communication, Information Technology (ICT) in curriculum delivery in many secondary schools in some

schools. However, with the integration of ICT in teaching, the author, Kisirkoi (2015), established that the students and teachers who were computer literate, able to manage computer applications for teaching and learning. The Learning process was found to be practical with learner interactions and activities based learning. The motivation was a desire to teach better coupled with visionary, supportive school leadership. *The school was using ICT as a teaching and learning tool and there was the improvement of the learning environment and outcomes. Many schools ought to emulate the school (Kisirkoi, 2015).*

Smits (2013), asserts that in the last few decades, ICT has strongly influenced society as well as education as it has become a ubiquitous part of daily life offering access to a world of knowledge, and the schools try to match these changes by incorporating ICT in their education. Such integration of ICT into teaching is also affected by several factors. Students in the United Kingdom showed that students had a wide range of information and communications technology (ICT) skills at the start of their course; much of their experience had been gained during their undergraduate studies or at home. They also had considerable enthusiasm for learning more skills and using them in their future careers as teachers. However, as many other researchers (chuckle, Clarke, Jenkins, chuckle, Clarke, & Jenkins, 2006), have also found, students were not always able to transfer their skills to use in the classroom, although they very often used them in preparing both classroom materials and assessed coursework. Significant differences in ICT use were found between students studying different subjects; availability of ICT facilities in schools (varying between subjects) also affected the use of ICT.

Previous research has shown that student teachers often had IT skills which they did not use in classroom teaching. The amount of classroom use of IT differed between subject specialists, although there is no study of different amounts of ICT use across a wide range of subjects. For example, in France, Baron & Bruillard (1994) questioned whether IT had been integrated

across subjects and proposed that practicing teachers needed to believe in the usefulness of IT in their subjects before advising students on its use. It may not always be easy for students to transfer their personal skills in IT to using them in the classroom, and if they are doing so they may need opportunity, facilities and considerable encouragement and support from their training establishments and schools. Moreover, Fisher (Fisher, T., 1996) suggested that in the UK, established teachers with ambivalent attitudes to IT may depend on newly qualified teachers to initiate or encourage IT use (Cuckle et al., 2006).

To justify the use of ICT in instruction, a study (Social, 2009) was conducted with primary school teachers using Knowledge, Use and Attitude Scales of ICT. The results show that the most commonly used and well-known ICT types among teachers are the Internet, e-mail and word processing, and teachers' attitudes towards computers and the Internet are generally positive. It was also found that their attitudes vary with their years of experience and levels of knowledge, and the researcher concluded that the developments about and widespread use of Communication and Information Technologies (ICT) influence all fields of life, one of which is education.

Moreover, recent research (Morris, 2010), would appear to indicate that a diverse landscape exists in primary and secondary schools, both in terms of teachers' ICT skills and the implementation of pedagogy and practice. Despite this diversity, Britain is still contended to be one of the world leaders in the use of technology in education with at least billion having been invested and, although government funding is set to continue, the percentage of schools considered to be mature remains relatively low.

Nowadays, Information and Communications Technologies (ICT) play an increasingly important role in education. Indeed, ICT is considered as very useful pedagogical tools, and multimedia resources are constantly being created, updated and shared by university members worldwide. The author (Sevilla, 2012), dealt with a case of a study exploring the way in which the integration of ICT impacts (UV), in Spain. The results of the study point out the need for academic staff and students to acquire the appropriate knowledge and develop the skills required for efficient and effective use of ICT. Thus, over the last decade, the Spanish universities, as well as the rest of the European universities, have started a process of development of the common European Higher Education Area (EHEA), which involves important changes and innovations in the syllabus, as well as the emergence of the "degree / master's degree" structure (Sevilla, 2012)

At present, hardly anybody can do without the use of information and communication technologies (ICT). They have undoubtedly penetrated in all spheres of human life (Klimova, 2012). Therefore, the purpose of the present study is to discuss to type and use of ICT Tools in various courses and evaluated the discernment on the usage of ICT Tools in teaching the courses in a Catholic school setting.

## **METHODOLOGY**

The researcher used a descriptive cross-sectional design. A descriptive cross-sectional design is an observational study. This means that the researcher recorded information about the participants without manipulating the study environment (Bueno, 2017). The study was conducted at the St. Anthony School of Matain, Subic, Zambales. The total population was 220, made up of 20 History and Geography Teachers and 200 high school students. The researchers had chosen 20 teachers for the study on the basis that they had been exposed to any History and Geography and were also ready to respond to the instruments. The research instruments used to collect data included questionnaires for teachers and students were purely quantitative data and were processed using descriptive statistics.

## **RESULTS and DISCUSSION**

**Profile of Teachers.** The result shows that most 13 (65%) of the teachers were male, while 7 (35%) were female. This is an indication that more males are gaining interest in teaching History using ICT Tools. It further shows that the majority 7 (35%) of the teachers falls between the ages of 26-30 years. This is followed by the age range of 20-25 years with 6 (30%) of teachers. The results clearly show that teachers use ICT Tools in Teaching History and Geography. The majority 12 (60%) of the teachers is a Bachelor's degree holder. This is followed by the teachers who are Master's degree holder with a frequency of 12 (40%).

**ICT Tools used in Teaching History and Geography.** It shows that all (100%) teachers agreed that the internet, Laptop, LCD Projector, Word and Smart TV. Moreover, 19 (95%) agreed on the used of PowerPoint, Word, Excel, Database, LCD Projector, and Speaker; and 18 (90%) of the teachers agreed on PowerPoint, Desktop Computer, and Speaker; while 17 (85%) agreed on the use of Excel and Database. This means that the teachers use these tools as part of their assessment method.

The findings imply that Catholic school teachers be given various in-service training relative to the use of ICT tools to further enhance their teaching skills. The students may also be aware and knowledgeable of the first foundational standard, “basic operations and concepts”, to demonstrate a sound understanding of the nature and operation of technology systems, and be proficient in the use of technology (Capuk, 2015). These two standards require students to learn knowledge skills in the operational aspects of ICT. Therefore, the content of the ICT curriculum must be defined in order to meet the requirements of the standards. And, there should be teachers who teach ICT in schools. However, Kisirkoi (2015), identifies ICT as a part of all subject matter teachers’ knowledge, not as the specific responsibility of an ICT teacher or technology teacher. This means that educational technologies as a subject domain are accepted, but requires that its content should be known by all teachers. Therefore, specific content needs to be taught at schools. Furthermore, with the introduction of the iPad in 2010, the concept of modern tablet PCs was redefined to a simpler, touch-enabled and lightweight mobile device (Capuk, 2015; Cuckle et al., 2006; Fook, Eng, & Ping, 2013; Kennah, 2016; Mortazavi & Ahmadigatab, 2012; Rodriguez, 1998). These properties, together with its steep learning curve, had drawn the attention of schools as it was possibly the device teachers had been longing for to address the changing needs of 21st-century students. Various schools have started pilot projects to explore the educational possibilities of tablet PCs. As with many earlier technological innovations, a great amount of potential was attributed to these devices. On the one hand, it overcomes a number of problems of older technologies such as desktop and laptop computers, such as limited mobility, battery life, boot time and ease of use. On the other hand, it could offer pedagogical advantages like mobile learning (m-learning), media creation, productivity, collaboration and augmented reality (Cochrane, Narayan, & Old Field, 2013). In this connection, Dewey, (1964) in (Smits, 2013), methods of teaching are different in different subject matters. This raised a question regarding the fact that “no one asks how the subject matter was transformed from the knowledge of the teacher into the content of instruction,” there he was referring to the content of teaching as a missing paradigm. Moreover, “what’s missing is questioned about the content of the lesson taught, the questions asked, and the explanations offered. How does learning for teaching occur?” (Bidarian & Mohammad, 2011; Capuk, 2015; Kennah, 2016; Mura & Diamantini, 2014; Sadi, 2010; Vintere, 2012). The content knowledge of teaching is

Subject matter knowledge, pedagogical content knowledge, and pedagogical knowledge. Drawing from Shulman’s PCK theory, two ICT curriculum model proposed. ICT can be identified as the content (the actual subject matter that is to be taught), pedagogy (the process and practice or methods of teaching and learning). The relationship between content (ICT) and pedagogy represents the teachers PCK.

Specific arguments relative to the use of ICT were identified (Morgan, & Tidmarsh, 2004). Such arguments can be found in more recent accounts of ICT and geography teaching. For example, Hassell (2002) shares this optimism about the potential of ICT in geography teaching. The following quote from his article explains why geography teachers should be integrating ICT into their teaching “*Throughout a huge range of human activity, including commerce and the public sector, ICT is playing an increasing role in decision-making, ranging from locating a road or superstore to the identification of flood or weather hazards. ICT can enable better decision-making as it is possible to take into consideration a wider range of variables, as well as supporting the monitoring of natural hazards and systems to provide greater warning and providing the opportunity to take action to reduce impact. As a result, ICT can provide better and faster tools for decision-making. These changes have an impact in two ways; first, they change the geography we teach, but second, they change the decision-making skills and processes that we should be developing in children. The key issue in this area is how can the subject community ensure that the geography of formal curricula that is taught and examined keeps up with these changes?* (p. 155).

In this statement, the researcher has a clear ‘vision’ of the way in which ICT changes how geographers study the world and how these challenges geography teachers to respond. The ‘issues’ that Hassell identify are essentially how ‘geography’ (presumably he means geographers) can respond to these ‘challenges’. The ‘problems’ are essentially technical, involving people developing their skills, working together and planning more effectively. Later in this paper, we will argue that these visions of ICT-enhanced geography depend on a particular understanding of what ‘geography’ is, one that serves to exclude or marginalize other ‘versions’ of school geography. Before we make this argument, though, we want, in the next section, to suggest how this optimistic view of ICT and geography teaching finds expression in the daily lives of geography teachers.

Thus, in an article that is decidedly ‘optimistic’ about the role of ICT in geography teaching, we find the

following list of 'concerns' and calls for geography teachers to adopt a 'critical perspective' (Kent & Phillips, 1994): *Additional to specific research conducted in IT and geography, have been various critical perspectives aired over the last ten years or so. In the face of overpowering, persuasive and well-funded developments these must not be lost. They included a concern that children will interact more with machines rather than with people; IT may too readily wag the geography curriculum; opportunity costs of these IT developments; vocational relevance of IT programs below graduate level is often overplayed; educators and their educational objectives are powerless in the face of a powerful computer/industrial lobby; a concern that an extension of IT can reinforce power, extending exploitation and control; a concern that there seems to be increasing polarization between children in certain schools with a richness of IT experience and those in less favorable circumstances. Is the logical extension of this a majority of illiterate and deskilled students and a minority of powerful IT literate? a concern for the gender imbalance in the ways IT across the curriculum is delivered in schools. Indeed, a key feature about ICT was the worry that the focus on ICT might be at the expense of the quality of the geographical learning (Ayodele & Education, 2019; Cox et al., 2004; Ezugwu, Ofem, Rathod, Agushaka, & Haruna, 2016; Ghavifekr, Kunjappan, & Ramasamy, 2006; Grimaldi & Iengo, n.d.; Hennessy et al., 2010; Papanastasiou & Angeli, 2008; Shabrina, Nor, Aziah, & Kasim, 2015; Tvenge, Martinsen, Sudha, & Keshav, 2016; Zubković, 2017)*

## CONCLUSION AND RECOMMENDATION

The Use of ICT tools in the teaching of History or Geography helps the teacher a lot in preparing and delivering the lesson to their students. However, several issues arose relative to the effective integration of ICT where children will interact more with machines than with people; it may too readily shake the geography curriculum; the costs of these IT developments; the relevance of IT programs; educators and their educational objectives are powerless in the face of a powerful computer/industrial lobby; an extension of IT can reinforce power, extending exploitation and control; there seems to be increasing polarization between children in certain schools with a richness of IT experience and those in less favorable circumstances; attitudes of the teachers and students towards ICT; knowledge levels of the users; gender sensitivity issue; and the curricula being implemented in schools. Thus, it is imperative for the school administrators to have effective and efficient planning and implementation with

regards to ICT integration into the teaching and learning processes. Future researchers must consider the limitations of this study in conducting a related study. This research only used a cross-sectional design, with a short survey-questionnaire checklist; short time frame; the minimal number of participants and only in one school setting. Thus, these have caused their limitations.

## REFERENCES

- Ayodele, A., & Education, M. S. (2019). An assessment of secondary school teachers uses of ICT: implications for further development of ICT's use in Nigerian secondary schools. *University of Botswana Journal*, 5-17.
- Bidarian, S., & Mohammad, A. (2011). International Conference on Education and Educational Psychology ( ICEEPSY 2011 ) A Model for the application of ICT in the process of teaching and learning. *Procedia - Social and Behavioral Sciences*, 29, 1032-1041. <https://doi.org/10.1016/j.sbspro.2011.11.336>
- Bueno, D. (2017). Research Skills of the Professorial Lecturers : Input to Capability Building, *JPAIR Institutional Research*, 9(9), 1-17. [doi:10.7719/irj.v9i9.489](https://doi.org/10.7719/irj.v9i9.489)
- Capuk, S. (2015). ICT Integration Models into Middle and High School Curriculum in The USA. *Procedia - Social and Behavioral Sciences*, 191, 1218-1224. <https://doi.org/10.1016/j.sbspro.2015.04.409>
- Cox, E. M., Abbott, C., Cox, A. M., Abbott, C., Webb, M., Beauchamp, T., & Rhodes, V. (2004). A review of the research literature relating to ICT and attainment, (January), 1-58.
- Cuckle, P., Clarke, S., Jenkins, I., Cuckle, P. A. T., Clarke, S., & Jenkins, I. (2006). Students ' information and communications technology skills and their use during teacher training. <https://doi.org/10.1080/1475939000200072>
- Ezugwu, A. E., Ofem, P. O., Rathod, P., Agushaka, J. O., & Haruna, S. (2016). An Empirical Evaluation of the Role of Information and Communication Technology in the Advancement of Teaching and Learning. *Procedia - Procedia Computer Science*, 92, 568-577. <https://doi.org/10.1016/j.procs.2016.07.384>
- Ghavifekr, S., Kunjappan, T., & Ramasamy, L. (2006). Teaching and Learning with ICT Tools : Issues and Challenges from Teachers ' Perceptions, 4(2), 38-57.
- Grimaldi, A. D., & Iengo, M. (n.d.). The Impact of ICT on CLIL History : New Sources, New Languages, New Tasks, (Clil).
- Fook, S., Eng, P., & Ping, F. (2013). Development of ICT Competency Standard Using the Delphi Technique. *Procedia - Social and Behavioral Sciences*, 103, 299-314. <https://doi.org/10.1016/j.sbspro.2013.10.338>
- Hennessy, S., Onguko, B., Harrison, D., Kiforo, E., Namalefe, S., & Naseem, A. (2010). Centre for Commonwealth Education & Aga Khan University Institute for Educational Development – Eastern Africa Research Report No . 1 Developing the Use of Information and Communication Technology to Enhance Teaching and Learning in East African Schools : Review of the Literature, (May).
- Kennah, M. R. (2016). The Use of ICT in the Teaching and Learning Process in Secondary Schools: A Case Study of Two Cameroonian schools, (August), 1-122.
- Kisirikoi, F. K. (2015). Integration of ICT in Education in a Secondary School in Kenya : A Case Study, 6(2), 1904-1909.
- Klimova, B. F. (2012). ICT versus traditional approaches to teaching, 47, 196-200.

- <https://doi.org/10.1016/j.sbspro.2012.06.638>
- Morgan, J., & Tidmarsh, C. (2004). Reconceptualising ICT in geography teaching This article was downloaded by: [ University of Bristol Library ] Reconceptualising ICT in geography teaching, (March). <https://doi.org/10.1080/1463631042000210935>
- Morris, D. (2010). Are teachers technophobes? Investigating professional competency in the use of ICT to support teaching and learning, 2(2), 4010–4015. <https://doi.org/10.1016/j.sbspro.2010.03.632>
- Mortazavi, S., & Ahmadigatab, T. (2012). To analyze the effective factors of using Information and Communication Technology ( ICT ) in Payam Noor University. *Procedia - Social and Behavioral Sciences*, 47, 24–28. <https://doi.org/10.1016/j.sbspro.2012.06.607>
- Mura, G., & Diamantini, D. (2014). The Use and Perception of ICT among Educators : the Italian Case. *Procedia - Social and Behavioral Sciences*, 141, 1228–1233. <https://doi.org/10.1016/j.sbspro.2014.05.211>
- Papanastasiou, E. C., & Angeli, C. (2008). Evaluating the Use of ICT in Education : Psychometric Properties of the Survey of Factors Affecting Teachers Teaching with Technology ( SFA-T 3 ), 11, 69–86.
- Rodriguez, C. (1998). 7. Building teachers' capacity to make better use of ICT in Philippines schools, 74–85.
- Sadi, S. (2010). Killing two birds with one stone : establishing professional communication among teachers, 9, 547–554. <https://doi.org/10.1016/j.sbspro.2010.12.195>
- Sevilla-, A. (2012). A study into the integration of it into a business management course : challenges and achievements, 46, 1375–1379. <https://doi.org/10.1016/j.sbspro.2012.05.305>
- Shabrina, A., Nor, M., Aziah, N., & Kasim, A. (2015). Blended Learning Web Tool Usage among Accounting Students : A Malaysian Perspective. *Procedia Economics and Finance*, 31(15), 170–185. [https://doi.org/10.1016/S2212-5671\(15\)01144-2](https://doi.org/10.1016/S2212-5671(15)01144-2)
- Smits, P. (2013). Rationales for Modern ICT Implementation into Schools A case of tablet PCs, (August).
- Social, P. (2009). Teachers ' effect on ict use in education : the Turkey sample, 1, 1285–1294. <https://doi.org/10.1016/j.sbspro.2009.01.228>
- Bidarian, S., & Mohammad, A. (2011). International Conference on Education and Educational Psychology ( ICEEPSY 2011 ) A Model for the application of ICT in the process of teaching and learning. *Procedia - Social and Behavioral Sciences*, 29, 1032–1041. <https://doi.org/10.1016/j.sbspro.2011.11.336>
- Bueno, D. C. (2017). Research Skills of the Professorial Lecturers : Input to Capability Building, 9(January), 1–17.
- Capuk, S. (2015). ICT Integration Models into Middle and High School Curriculum in The USA. *Procedia - Social and Behavioral Sciences*, 191, 1218–1224. <https://doi.org/10.1016/j.sbspro.2015.04.409>
- Cuckle, P., Clarke, S., Jenkins, I., Cuckle, P. A. T., Clarke, S., & Jenkins, I. (2006). Students ' information and communications technology skills and their use during teacher training. <https://doi.org/10.1080/1475939000200072>
- Fook, S., Eng, P., & Ping, F. (2013). Development of ICT Competency Standard Using the Delphi Technique. *Procedia - Social and Behavioral Sciences*, 103, 299–314. <https://doi.org/10.1016/j.sbspro.2013.10.338>
- Kennah, M. R. (2016). The Use of ICT in the Teaching and Learning Process in Secondary Schools : A Case Study of Two Cameroonian schools, (August), 1–122.
- Kisirkoi, F. K. (2015). Integration of ICT in Education in a Secondary School in Kenya : A Case Study, 6(2), 1904–1909.
- Klimova, B. F. (2012). ICT versus traditional approaches to teaching, 47, 196–200. <https://doi.org/10.1016/j.sbspro.2012.06.638>
- Morris, D. (2010). Are teachers technophobes? Investigating professional competency in the use of ICT to support teaching and learning, 2(2), 4010–4015. <https://doi.org/10.1016/j.sbspro.2010.03.632>
- Mortazavi, S., & Ahmadigatab, T. (2012). To analyze the effective factors of using Information and Communication Technology ( ICT ) in Payam Noor University. *Procedia - Social and Behavioral Sciences*, 47, 24–28. <https://doi.org/10.1016/j.sbspro.2012.06.607>
- Mura, G., & Diamantini, D. (2014). The Use and Perception of ICT among Educators : the Italian Case. *Procedia - Social and Behavioral Sciences*, 141, 1228–1233. <https://doi.org/10.1016/j.sbspro.2014.05.211>
- Rodriguez, C. (1998). 7. Building teachers' capacity to make better use of ICT in Philippines schools, 74–85.
- Sadi, S. (2010). Killing two birds with one stone : establishing professional communication among teachers, 9, 547–554. <https://doi.org/10.1016/j.sbspro.2010.12.195>
- Sevilla-, A. (2012). A study into the integration of ict into a business management course : challenges and achievements, 46, 1375–1379. <https://doi.org/10.1016/j.sbspro.2012.05.305>
- Smits, P. (2013). Rationales for Modern ICT Implementation into Schools A case of tablet PCs, (August)
- Social, P. (2009). Teachers ' effect on ict use in education : the Turkey sample, 1, 1285–1294. <https://doi.org/10.1016/j.sbspro.2009.01.228>
- Tvenge, N., Martinsen, K., Sudha, S., & Keshav, V. (2016). Combining learning factories and ICT- based situated learning. *Procedia CIRP*, 54, 101–106. <https://doi.org/10.1016/j.procir.2016.03.031>
- Vintere, A. (2012). The management of technology-enhanced study process development at LUA, 41, 37–44. <https://doi.org/10.1016/j.sbspro.2012.04.005>
- Zubković, B. R. (2017). Predictors of ICT Use in Teaching in Different Educational Domains, 9563, 145–154