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The contribution of Integrated ICT in Teaching and Learning Practice: Teachers' Perspective

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Information and Communication Technology, Teaching, Learning, Pedagogy.

Abstract

The practice of Information and Communication Technology (ICT) into educational practice continues to be successful in terms of changing the learning and teaching method. This is a case study under qualitative methodology. The purpose of this study is to find out what teachers think about the role of ICT integration in rural secondary school teaching and learning. Four teachers, purposefully selected, were interviewed in the month of March 2020.The results shows that teachers identify the incorporation of ICT as having a constructive result on the delivery of subject. The usage of ICT was related to increased student interest and motivation, as well as greater student participation. It enhanced teacher confidence by introducing dynamic to their lessons and generating additional enthusiasm and excitement. It was suggested that teacher training be focused toward building pedagogical skills connected to ICT use for more effective practice of ICT in the classroom. Furthermore, when trying to integrate technology into their teaching, teachers could yield benefit of the expertise that exists among the digital natives in their classes.

1. Introduction

The arrival of the digital age has vividly transformed every aspect of human life the way we work, the method we live the way we play, and the way we learn. In many states, the use of information and communication technology (ICT) in education is rapidly growing, and it is now widely recognized as both a requirement and an opportunity for improving and increasing the education provided to citizens everywhere. (UNESCO, 2006). ICT is, in fact, now viewed as "one of the building blocks of modern society" (UNESCO, 2002) and is now measured as one of the indices that should be used to assess a society's development. Several countries worldwide nowadays regard the usage of ICT skills as portion of their "essential education, in conjunction with reading, writing and numeracy" (UNESCO, 2002).

With the swift evolution in society, computer technology and network now play a more prominent role in facilitating teaching and learning as well. The traditional teaching and learning methods, which dismiss the practice of communication and application skills, are considered to be obsolete. For the past few decades, the rapid advancement of information and communication technologies (ICTs) has made potential contributions to education. Furthermore, the usage of ICTs increases learner motivation due to multimedia capabilities such as visual aids, audios, and videos.

Within the Sri Lankan context, on account of seeing that ICTs are of utmost importance, the Ministry of Education, Sri Lanka (2009) put great emphasis on the reform of education through the application of ICT applications and also eastern province education department put great emphasize on pedagogical practice of teaching.

In Sri Lankan context, there has been a immediate change in the role of the teacher in recent years by the significant investment by the government and privates. A newer paradigm from schools; new ways of teaching and learning, an increase in student numbers, and (most significantly) an increase in the development of teaching using ICT are among the many new developments and problems that teachers have and must adjust to accordingly. All of this means teachers need to update their knowledge and skills to develop the educational process in the classroom. With the introduction of a new mindset toward ICT and its role in education, a large body of research studying the role of ICT and its impact on the development of an interactive educational environment has sprung up.

This research focus on Navithanvelli education division of Sammanthurai Education Zone falling under Kalmunai Education District. The research division was under war affected area and government too defined as most difficult area by considering the accessibility. Mostly government and non-governmental organizations worked in this area to rebuild the education system with modern technologies. The focus of the study is simply to explore the phenomenon of the integration of ICT in Navithanvelli education division secondary school from the perspective of those who are expected to carry through the initiative. To conduct this research, KM/STR/Veerathidal AL-Hidaya Maha Vidiyalaya School is selected.

There is considerably less research, which focuses on the role, which ICT plays in creating and promoting a more interactive educational environment, as part of teaching and learning. Despite the fact that considerable research has been done on teaching in an ICT-integrated setting, there is still a significant research gap to be filled, as the difficulties and implications of teaching differ between student communities. (Rathnasena U. Dodantenna A. Jayakody,. Hettiaratchy A 2013) The presence of ICT in the interactive educational environment can help to develop thinking skills and make classrooms an environment for educational growth. The objective of this case study to explore the opinions of teachers in School of Navithamvelli Education Division to discover their observations of the involvement of Information and

Communication Technology (ICT) to learning and teaching by contributing knowledge on how effectively ICTs are used at School, the study will, hopefully, stimulate more research efforts in this domain and better inform practice. The focus of the study therefore revolved around the perception about the role of ICTs in instruction and the extent students and teachers at our schools use them in their academic work.

The next section of the paper is discussing the literature. Next, the methodology is outlined after which the analysis and discussion of findings are presented. This is followed by the conclusions of the study with consequences and recommendations for future research.

2. Literature Review

It is mostly believed that the use of ICTs in educational practice can empower both teachers and learners, promote change and foster the development of 21st century skills (Trucano, 2005). Trucano (2005) argued that ICT use has the potential to transform teaching and learning processes from a more teacher-centered to a more student-centered approach. Despite the fact that considerable research has been done on teaching in an ICT-integrated setting, there is still a significant research gap to be filled, as the difficulties and implications of teaching language in different student groups differ. (Rathnasena U. Dodantenna A.Jayakody ,. Hettiaratchy 2013) The need for more research is more pronounced in the event of improving Speaking and Listening skills. And also, over the past decade several studies have been conducted to examine the effect of the integration of ICT on teaching and learning.

Theoretical Perspective

Students and teachers interact in a classroom culture that is heavily influenced by school, local, national and global factors and the manner and frequency with which ICT is used in the classroom would be determined by those factors. Research has shown that while Mathematics teachers are able to include ICT more efficiently into teaching and learning, Modern Studies teachers experience greater difficulty when attempting to do so (Sutherland et al., 2004).

Within this situation, students and teachers bring their own experiences from both within and outside the classroom that connect to past learning cultures. There is a increasing form of evidence which seems to recommend that the behaviors in which students use ICTs at school are heavily influenced by out-of-school cultures of use (Sunderland et al., 2004). ICT tools are not static and continue to evolve with a rapidity that is nothing short of awe-inspiring. Students are generally more account than their teachers with the latest advances in technology. It is important, therefore, for learning environments involving the use of ICTs to be collaborative in nature in order to facilitate the co-construction of knowledge by students.

Mishra and Koehler (2006) initiate that understanding pedagogical uses of technology need the expansion of a multipart situated form of knowledge which they refer to as Technical Pedagogical and Content Knowledge (TPACK). Building on Shulman‟s (1986) “pedagogical content knowledge” model, TPACK outlines the important potentials of teacher knowledge essential for effective incorporation of technology in teaching. According to Mishra & Koehler (2006), TPACK is an emergent knowledge that goes beyond the three individual components of technology, pedagogy and content, and represents a class of knowledge that is central to teachers‟ work with technology.

Early initiatives in technology in education focused simply on the supply of hardware to schools under the misguided assumption that the mere presence of computer hardware would magically transform the teaching-learning process even in those cases where educational software was provided along with the hardware, there was the belief that knowledge was somehow embedded in the software and the technology, therefore, would do the teaching (Sutherland, et al., 2004). The painful lesson that has been

derived from that initial experience is that introducing technology to the educational process is not enough. Greater importance to the successful integration of ICTs in the educational process is what teachers must know in order to efficiently join in technology into their teaching (Mishra & Koehler, 2006).

The argument is that what is required is not simply knowledge of technology content and pedagogy but more importantly a thoughtful of the interrelationship between the three types of knowledge such as what pedagogy is suitable for which content, how technology and content are related and how pedagogical strategies can be applied to the use of technology. According to Mishra & Koehler (2006), there is a dynamic equilibrium between the three and productive technology integration requires an appreciation of that complex relationship. Viewing any of these components in isolation represents a disservice to good teaching. They argue that quality teaching requires developing a thoughtful of the complex relationship between these components and using this understanding to develop appropriate context-specific strategies.

Factors Impeding Greater Integration

Several studies have found that even teachers who hold constructivist pedagogical ideas may not always be able to teach actively due to other contextual issues such as teacher technological competency, time restrictions, and the pressures of high-stakes exams. (Becker, 2000; Deaney et al., 2006; Liu, 2010).

Liu (2010) suggests that current technology usage in education typically supports the old didactic modes, such as lecturing using technology. This, he argues, is due to the fact that teachers have an insufficient understanding of pedagogy associated with technology use. Mishra and Koehler‟s (2006) TPACK framework corroborates this argument. According to Liu (2010), a absence of knowledge about how to use technology effectively is a likely barrier to technology integration.

Furthermore, many teachers claim that attempting to integrate technology into the context of classroom activity creates a slew of additional issues, including classroom relocation when the essential technology is housed in a specialized room, equipment access, system unreliability, and a dearth of technical assistance. (Deaney et al., 2006). As a consequence, many educators continue to usage lecture-based or demonstrative teaching activities when using technology and teaching modes remain primarily teacher-centered.

Thus, current research indicates that there are several perceived benefits to integrating ICT into educational practice for both teachers and students. The importance of ICT as a motivator was emphasized, as were the benefits of having access to a greater choice of more current information. The goal of this study, like that of Lai and Pratt (2004), is to determine the contribution of ICT use to teaching and learning as viewed by teachers.

3. Research Methodology

The study will adopt a qualitative research design in the form of a case study and its focus will be the STR/Veerathidal Al-HidayahMaha vidiyala,1AB Grade School reformed under government ‘1000’ school progrmme which was upgraded with ICT modern learning environment, in Navithanvelli education division.

The focus of the study is simply to explore the phenomenon of the integration of ICT in a rural secondary school from the perspective of those who are expected to carry through the initiative.

Using the qualitative method, knowledge will be constructed from the meanings and responses obtained from in-depth interviews with the participants.

This is case study which seeks to understand the meanings teachers of the said school Studies derive from their experience of this innovation.

Merriam (1998) asserts that a case study is one that presents a detailed account of the phenomenon under study and is useful for investigating innovative programs and practices. Since this study seeks to garner teachers' perspectives on their experience with this innovation a case study is the most appropriate research design. Purposeful sampling will be used to select participants for the study. The sample will consist of four teachers from said school, who will be selected based on the criteria that they teach more than one subject (Major and Minor), deliver the curriculum at both Year Six to G.C.E.(O/L) and G.C.E.(A/L) of the said school and have been using ICT in their delivery for more than three years. It is believed that participants with these characteristics will be able to purposefully inform an understanding of the research problem and central phenomenon in the study (Creswell, 2007).

The techniques of the grounded theory methodology, as proposed by Strauss and Corbin (1990), will be employed to analyses the data as it allows for analysis of emerging data. After the interviews are transcribed, the data will be colour-coded by participants, segmented and re-grouped by questions. Initial or open coding will involve going over the data sentence by sentence and describing the actions, events, or ideas that are explicit in the data. This will help him to develop ideas inductively while preventing him from imposing existing theories or his own opinions on the facts (Chamaz, 2000), as well as providing a framework for analysis and interpretation.

Once the initial codes have been identified, axial coding along with the constant comparative method will be employed to identify patterns as well as paradoxes in the data (Glaser & Strauss as cited in Wellington, 2000, p. 136). These patterns or categories will be constantly reviewed and refined as data analysis proceeds. Finally, the categories are examined and reassembled in order to identify emerging patterns and construct a coherent description of the phenomenon under study (LeCompte, 2000). Findings are interpreted and discussed using emerging themes and categories supported by the narratives of the participants.

Data collected over a two-week period during the month of March 2020 and data collection took the form of semi-structured, face-to-face interviews each lasting approximately 30 minutes. The interview questions were framed to elicit data on teachers' perspective of the effects of ICT use on teacher's pedagogy, effects on the learners and learning, effects on the teachers 'motivation and engagement and to explore those factors that support or hinder ICT use. All interviews were audio-taped and were transcribed verbatim as it is believed that this method of transcription provides the best database for analysis (Merriam, 1998). Preliminary analysis of the data began during transcription with the researcher making brief memos and anecdotes as the data was being transcribed.

The sample for this study consisted of four teachers of the selected school. Two of the participants are PGD Dip in Education 1 trained teachers each with over ten years teaching experience at the school under study while the other two teachers are yet to receive post graduate and together have been teaching at the school an average of four years. Content analysis of the combined interviews was then carried out sentence by sentence in order to determine what the data was saying and to identify themes and patterns in the data. As data analysis progressed, themes were revised and categories restructured to better represent the emerging patterns. The findings will be presented and discussed based on the themes and categories identified.

4. Findings

As indicated in the World Bank report on ICT in Education, it is difficult to measure the actual impact of ICT on teaching and learning (Trucano, 2006). As Mishra and Koehler (2007) point out, teaching is a complex and ill-structured problem to which there is no single, perfect solution. Teaching and learning takes place in environments that are fluid and ever-evolving and

a multiplicity of factors converge and interact to determine how effectively teaching has taken place and learning effected. As such, this study did not intend to assess the impact of ICT use on teaching and learning but rather to investigate teachers' perspectiveof its contribution to the teaching and learning process. The analysis of the interview data, therefore, focused on what the four teachers had to say about the contribution of ICT to the teaching and learning at STR/Veerathidal Al-Hidaya Mahavidiyala, rural secondary school.

Effects of ICT use on teachers' pedagogy.

This theme centered on the contribution of ICT use to the pedagogical practices of the teachers and sought to determine the types of ICTs being used by the teachers, how they were being used, what effect that use was having on the delivery of the content and if the use of ICT had effected a change in the methods of delivery adopted by teachers. The responses of the teachers were divided into five sub-categories, all of which relevant to the teacher' pedagogic practice: manner of usage, enhanced content delivery, expanded resource utilization, pedagogical practice affected, and negative results.

Manner of use.

All teachers reported making use of a variety of ICTs in the delivery of their lessons as well as using it for a variety of purposes. ICTs such as PowerPoint presentations, audio clips, live video streams, wikis and still pictures were used as visual aids and auditory stimulation to get students thinking and as a stimulus to initiate discussions:

Teachers also reported that ICT made it easier to review and recap the main points of what was taught in a lesson and saw it as an excellent tool for repetition and reinforcement of content and skills taught.

…as aanalysis of the last lesson… I would put the questions up on the board and I basically ask who wanted to do questions one, two, three or four. So that they could see the questions, I would not have to call them out…

The use of ICT was also incorporated in all areas of the lesson from the induction and lesson summary to being used for the main activity during the lesson.

Sometimes [I use it for] induction if I want to present them with a scenario that would launch the discussion. Sometimes it might just be to given them content during the lesson…

Teachers, therefore, incorporated ICTs in all areas of their lessons and made use of the technology in several different ways.

Content delivery improved.

Most teachers reported that the integration of ICT into the teaching at KM/STR/Veerathidal AL-HidayaMahaVidiyalaya has facilitated a more quick delivery of the content of the various subjects.

The view was also expressed that ICT has helped the teachers to maximize content delivery and has made it possible for the teachers to get more done in the particular class time thus enabling faster completion of the syllabus.

In addition, most teachers reported that the use of ICT not only facilitates the easier delivery of the more difficult and complex topics in the syllabus but that it is more beneficial to the students when ICT is used.

In looking at the topics I have to teach there are some things I realize is easier or it is better more beneficial to students if I do it using ICT…

However, one teacher expressed the view that ICT cannot be used effectively to teach all topics and that it was extremely difficult to teach abstract, highly theoretical topics using ICT. She reiterated that how effectively ICT is used can be determined by the content to be delivered.

…there are some things that...it makes no sense using ICT…especially when you have to teach a theory… So in those cases when you teach the theory you do not really need the ICT. It depends on the content.

While some teachers mentioned to the fact that lessons can be completed faster because both students and teachers were so immersed in the lesson when ICT is used, one teacher expressed the view that the use of ICT could, in fact, slow down the lesson making it difficult to complete the syllabus in a timely manner.

All teachers agreed, however, that the use of ICT demanded greater creativity in delivery from the teacher. As one teacher pointed out, even with the use of ICT the teacher had to devise ways of making the lesson interesting for the students.

…when you have to include ICT you, therefore, have to think of what resources what ideas would be relevant and put it in a way that the students would willingly listen whether it is the video or even just the PowerPoint, you must make that also interesting.

Use of aids and resources broadened.

The integration of ICT into education has broadened the range of resources available to teachers. All teachers indicated that they are now able to make use of a wider range of resources both in the preparation and delivery of their lessons.

The integration of ICTs has made possible the use of concrete, real-world examples in the delivery of the curriculum which brings the „reality of outside‟ into the classroom that ICT affords enhances the delivery of content and brings the curriculum to life for the students.

Pedagogical practice affected.

The use of ICT in the delivery of their lessons has afforded the teachers greater opportunity to vary their approach in order to cater for the different types of learners in their class. As a result, teachers feel that they are able to reach more students when ICT is used.

It reaches most of the children those who normally get bored with just the book and the talk… it helps where a child is not too much into the talk and she cannot … listen and write at the same time. It helps with those who are visually stimulated...

I am able to reach more students, I think, through the use of ICT. The teachers also indicated that the integration of ICT in classroom practice is especially useful for the more introverted, less confident child and helps to draw her into the class. In addition, it also helps to create a less intimidating environment for the weaker student.

However, one teacher expressed the view that the way ICT is being used still involves a lot of “brain work” and, as such, does not really cater for the more artistic and tactile learner. Even with the use of ICT, classes would have to be purposefully structured to meet the needs of those students. With respect to the degree to which ICT impacts the teaching style adopted by teachers, the responses varied with three teachers indicating a subtle shift to a more learner-centered approach while one maintained a more teacher-centered approach.

For now it is more teacher-centered but I am trying to get it to shift towards the student-centered.

In terms of teaching in the classroom, I have been able to shift from teacher-centered to learner-centered…ICT has helped with this because then I can get them to do things.

Those teachers who are shifting to a more student-centered approach have attempted to use more collaborative learning strategies and include

more project-based learning and group work in their delivery.

I think it is more a student-centered because I really try to use [methods] from collaborative learning so I like get them in smaller groups… So I go around and…find out what is going on. I find that they work better in groups.

The teachers reported that with that shift their role in the classroom has changed from that of the "sage on the stage" to being more of a guide and a facilitator. They found that the use of ICT facilitates less teacher-talk and greater student involvement.

I get to talk less. That is a big thing. I used to go home with a sore throat…because I have been talking for the entire day. So I get to talk less. As I said, they are more involved. One of the positive impacts of ICT identified by the teachers is the extension of the classroom into the digital environment of the internet. The use of ICTs facilitates increased communication between teacher and student as teachers are determining to continue their dialogue with their students over the internet. The teachers reported making use of wikis and social networking sites such as Facebook to keep classroom discussions going as well as to give assignments.

…with my History students … we use to communicate on Facebook. I would send them a message saying what I wanted…they could actually go up on the internet do different chats about it, do different blogs about it… so learning is moving outside of the classroom.

All four teachers reported using email facilities for the submission of assignments and for giving feedback to their students on assignments submitted.

I also use email to give feedback to students. I also use it to correct essays using Microsoft word and review tab.

The teachers also indicated that the use of ICT facilitates better classroom management and control. Students tend to be more focused and less disruptive when ICT is used.

It definitely helps the teacher in terms of class control and class management.

Negative outcomes.

In addition to all the benefits, teachers also identified some negative consequences of ICT use for classroom teaching. The most commonly cited problem with respect to ICT use was technical problems with the equipment which can at times significantly reduce teaching time.

It is a valuable tool but also it can distract from delivering your class because if you do not know how to set it up or if you have problems then that is going to take away from your teaching time.

Time required for setting up the equipment for the lesson also impacts on teaching time and can also be a source of distraction for the students.

If we are not using the multimedia rooms the time it takes to set up in the classroom …it would take about 5 or more minutes and that is 5 minutes of class time that is going.

In addition, one teacher felt that she had a tendency to depend too much on the technology for the delivery of some topics especially when the delivery of those topics are not necessarily enhanced by ICT use.

…some of the topics I may depend too much on the ICT…and that would not bring across the lesson as clearly as it should.

The findings of this study offered a comprehensive picture of the perceived contribution that the integration of ICT in the educative process makes to the teaching and learning at STR/Veerathidal Al-HidayahMahavidiyala, rural secondary school.

It is clear that ICT use is having an impact on how teachers work and how they structure learning experiences for their students.

While teachers used ICT in all parts of the class, the study showed that the focus of use tended to be on quick delivery of content and syllabus completion rather than knowledge creation, as described in Becker's study. (2002), Balanskat et al., (2006) and Liu (2010). One of the major strengths of ICT use, according to teachers, is the more efficient delivery of content that it allows. According to Tella et al. (2007), there is a noticeable distinction between teachers who critically select ICT resources to meet a topic and those who merely utilize it to show work.

With respect to teachers' pedagogic practice, the findings indicate that teachers are beginning to review their role in the classroom when using ICTs in their teaching. Like the teachers in the study conducted by Deaney et al., (2005), some are making a subtle shift in their delivery to a less moral approach. However, others continued to utilize a more lecture-based approach to delivery (Liu, 2010). In their study, Deaney et al. (2005) stressed the teacher's strategic role in structuring tasks and activities requiring the use of ICT. The teachers under study also underscored the importance of the teacher in carefully managing activities involving ICT use so that intended outcomes could be achieved. Teachers felt that while ICT facilitated the achievement of lesson objectives its use must be well-planned and teachers must retain control of the class. Similar to the findings of Deaney et al. (2005), Teachers emphasized the advantages of having access to a wider range of resources and having more meaningful learning experiences as a result of ICT use.

In accord with Lai and Pratt (2007), this study discovered that integrating ICT into teachers' practice had the greatest impact on teaching administration and management. Teachers were of the opinion that ICT use introduces a greater level of efficiency in the administration of their craft and demands the adoption of a more critical approach to planning. ICT use, according to all teachers, necessitated increased creativity in class design and, as a result, substantially more time was spent planning and preparing. As reported in the study by Deaney et al. (2005), all teachers in this study stressed the importance of having a back-up plan when using ICT in classroom delivery.

With respect to its effect on student engagement and interest, the findings revealed that teachers believe that ICT use helped to create learning environments that were more conducive to student learning as it served to capture their interest and lead to greater student involvement and engagement. Teachers reported that student were better able to recall content when ICT was used since it afforded the use of concrete, real world examples with which students identified. Lai and Pratt (2007), Deaney et al. (2006), and Balanskat et al. (2006) all support these conclusions. (2006). Teachers also indicated that ICT use was especially beneficial to the academically weaker and more introverted child as it helped to draw these students into the class. However, teachers also identified several negative consequences of ICT use for student learning such as a loss an interest in reading and poor research skills. Teachers also indicated an increased problem with plagiarism with the use of the internet (Lai & Pratt, 2007).

As reported in other studies (Balanskat et al., 2006; Lai & Pratt, 2007), the findings revealed that the incorporation of ICT had positive motivational benefits for both teachers and students. Both students and teachers were excited and intrigued by the use of ICT in the classroom with students demonstrating increased enthusiasm for learning. ICT use had the effect of creating greater subject appeal thus arousing in students a desire to know more and encouraging independent study and ownership of learning. Teachers experience greater enjoyment from their craft and are motivated to do more.

Though all teachers indicated a desire to make more meaningful use of technology in their classrooms, they identified several disorders to use which made greater integration of ICT difficult. The most pervasive of these barriers were technical problems with the equipment, time constraints and the availability of equipment. Teacher technical competence was also identified by the teachers as a factor hindering greater use. As Mishra and Koehler (2007) point out teachers often have inadequate experience with using digital technologies for teaching and learning and as such do not consider themselves sufficiently prepared to do so. Significantly, teachers also stressed the importance of training in pedagogy related to technology use and not simply the acquisition of ICT skills as an essential prerequisite for effective ICT use. Mishra and Koehler‟s (2007) argument that effective teaching with technology requires an understanding of pedagogical techniques that use technologies in constructive ways to teach content supports this positionDespite the difficulties associated with ICT use, teachers were generally of the opinion that ICTs offered excellent tools to both the teacher and the learner and its use contributed positively to both teaching and learning.

Conclusion

The integration of ICT into educational practice continues to be seen as having the potential to transform teaching and learning. Several studies have shown that when utilized effectively ICT enhances the teaching-learning process in several ways. This study sought to ascertain the perceptions of teachers as to the involvement of ICT to teaching and learning the area of pedagogy. Qualitative research design was adopted in the form a case study and data were collected using semi-structured interviews with four members of the selected school, who were purposefully selected. The ground theory methodology as planned by Strauss and Corbin (1990) was used to analyse the data.

The results of the survey revealed that teachers did perceive several positive benefits to the integration of ICT in the teaching for both the teacher and the students. Generally, teachers viewed ICT as a “fantastic tool” for engaging learners and capturing their interest. ICT use exposed students to richer, less intimidating learning environments and encouraged them to take ownership of their learning. In addition, ICT was also seen as important motivational tool for teachers, engaging and exciting them about their craft and encouraging them to be more creative in their approach to their work. ICT use exposes both teacher and students to a wider range of resources of greater currency and made possible real-world experiences that aroused students’ empathy and made learning more meaningful. However, its use still needs to be carefully monitored as it could easily become a source of distraction and a deterrent to learning. The essential role of the teacher in adaptively managing its use is key to the effective integration of ICT in educational practice. Technology cannot do the teaching in lieu of the teacher so it is imperative that its use in the classroom be carefully planned and managed.

It is undeniable that ICT has great potential to transform the learning environment and when utilized well can enhance the learning process. However, teachers must be competent and confident in technical, pedagogical and content knowledge for technology to be used effectively in the classroom. It is imperative, therefore, for teachers to be afforded opportunities to develop their skills not only in technology but in pedagogy associated with technology use. That is, they must be assisted in developing technological pedagogical content knowledge (Mishra and Koehler, 2007). Since many teachers lack both competence and confidence in using ICT and students, as digital natives, bring with them an array of ICT skills to the classroom, teachers could enlist the assistance of technically skilled students both as peer tutors and teaching assistants when using technology in the classroom.

Few would argue that information and communication technology (ICT) provides a set of powerful tools that proficient users can use to achieve a variety of goals in the classroom (Deaney et al., 2006). As a result, it's vital that educators develop the skills and competencies they'll need to succeed fully exploit the potential that ICT has to offer for teaching and learning as they prepare their charges to meet the challenges of the 21st century.

Accordingly, most of the teacher's in the Navithanvelli Education division having a positive perception in terms their pedagogical activities which highly support them to enhance their teaching practice with the vital role and advantage of integration of ICT.

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