Addressing the integration of ICT into teaching and Identification of the potential factors motivating teachers to use ICT

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Abstract

This present study is set up to investigate how ICT can be successfully integrated in the course of teaching and to explore the factors that motivate or de-motivate teachers to use ICT inside the classroom setting. It also seeks to examine the reasons behind sustaining their use of ICT in the teaching process. The study employed “Herzberg’ Motivation–Hygiene theory” to guide the process of understanding and categorizing the motivational factors. For the purpose of the study, data are collected through the use of semi-structured interviews with teachers who are experienced in using ICT. The deductive qualitative content analysis of the results reveal that the motivational factors which correlated most positively with ICT use are: self-perceived ability to use technology, level of resources available and satisfaction generated from utilizing IT, as well as and a sense of achievement resulting from applying technologies for teaching purposes. The study also identifies a variety of motivational factors attributed by teachers to using ICT, such as: creating a satisfying and encouraging classroom environment, making teaching stimulating by increasing the attractiveness of tasks and enjoyable by breaking the monotony of class sessions, promoting the development of group cohesiveness by making learners active task participants.

Keywords: ICT, teaching, ICT integration, motivational factors, Herzberg’ Motivation, Hygiene theory.
Part One: A Review of the literature

This part seeks to expose some prominent research studies that aim at identifying ICT and to reflect on ICT contributive role in Education.

1. Introduction

In an information age, the demands and the methods of teaching are tremendously revolutionizing in order to cope with the changes in the 21th C skills. Recent research studies in education have been devoted to accentuate the significant role of Information and Communication Technology (ICT) in the teaching/learning process. In fact, the integration of ICT has increasingly attracted the attention of teachers all over the world.

From the advent of the computer in the mid-1970s to nowadays, researchers have been addressing the significance of ICTs to help renovate education and develop student learning. They have been showing that the integration of technology into the teaching process provides opportunities for students to learn to operate in an information age. According to Bain & Ross (1999), the application of ICT in education enhances not only students’ scores on standardized tests but also their critical thinking. It develops and supports students’ self-concept and motivation (e.g., Sivin-Kachala & Bialo, 2000).

It is believed that an effective integration of ICT centers upon the important role of the teacher. Therefore, there is a growing demand on the teachers to prepare the ground for employing new technologies through which teaching learners the 21th C skills and knowledge can be achieved. In this context, Dawes (2001) highlights the potential of new technologies to improve education across the curriculum and to facilitate communication between the teachers and pupils.

This article stems from the belief that teachers are the core of ICT integration. It is then necessary to understand and differentiate the internal and external factors that influence teachers’ beliefs, perceptions and attitudes towards using ICT for their classes. Thus, this article attempts to explore the motivational factors that lie behind teachers’ adoption or rejection of ICT in the classroom setting.

2. Defining ICT

Due to the rapid technological growth and the remarkable impact of globalization on modernizing societies, ICT is gaining a significant powerful role in various domains particularly in education. Before trying to distinguish the factors influencing ICT integration in education, there is a need to understand and identify the concept of ICT.

- According to UNESCO definition (2002, p.15), ICT stands for “Information and Communication Technology which includes digital technology such as computer and internet which are potential powerful tools for educational change and reform”.
- According to SER (1997, p10), ICT is “a generic term referring to technologies, which are being used for collecting, storing, editing and passing on information in various forms”.
- R.C Richey (2008, p 25) posited that ICT is “the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources. It is the incorporation of internet applications, hardware, software and other information technologies into the learning experiences”.

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M.D Roblyer (2000, p 40) stated that “a combination of the processes and tools involved in addressing educational needs and problems, with an emphasis on applying the most current tools: computers and their related technologies”

Following Blurton (1999, p 13), ICTs are “technological tools and resources that are used to communicate, and to create, disseminate, store, and manage information.” They “include hardware, software and NetWare, as well as institutional, financial, cultural and application-related parameters that determine how ICTs will be shaped and developed by society at large. Five areas where ICTs can contribute to education: Expanding access, promoting efficiency, improving the quality of learning, enhancing the quality of teaching, improving management systems”.

It is to be noted that ICT basically involves using digital technology, communication tools and/or access, manage, integrate, evaluate and create information in order to function in a modern society.

Moreover, ICT tools comprise: Multimedia PC; Laptop; Notebook; CDs& DVDs; digital video; camera; Internet (including e-mail, browsers, website, search engines, chat etc.); Computer aided instruction& computer mediated video/audio conferencing; Digital libraries, e-books& electronic publications; Microsoft publishing (such as news letter, poster, and brochure); Digital techniques (including Word processing (such as documents, notes, projects, assignments); Spread sheet programming (like records and exam scores). Data bases (to store information); Graphing software (to prepare teaching- learning resources); Developing Multimedia kits; Games and simulations.

3. The importance of ICT in education

In an information age, the use of new technologies inside the classroom setting is deemed necessary for providing learners with knowledge and information of specific subject areas, promoting meaningful authentic learning and enhancing learners’ and teachers’ productivity. As Grimus (2000) claimed that “by teaching ICT skills in primary schools the pupils are prepared to face future developments” (p. 362). Similarly, Bransford et all (2000) reported that “what is known about learning provide important guidelines for uses of technology that can help students and teachers develop the competencies needed for the 21thc skills.” (p.206). Following Kozma (2005), the significance of integrating ICTs in schools is to develop teaching and learning practices, as well as preparing students for the workplace where ICTs are gaining notable importance. Yet, the significance can be achieved if teachers are themselves motivated to integrate technologies into the teaching experiences.

In fact, Constructive learning is likely to be improved through the integration of ICTs in the curriculum delivery. According to Bester & Brand (2013), comprehension and problem solving capacities are better learnt using interactive media, hence necessitating the integration of ICT into the teaching and learning process and learners’ thinking can also be developed in a more efficient way than traditional teaching practices. Many researchers have showed that ICT prepares the ground for learners to promote and develop critical thinking skills as well as information accessing, evaluation and synthesizing skills (e.g., Bester & Brand, 2013). Thanks to ICT implementation in class, learners can as well build up cognitive skills like reasoning, understanding and creativity (e.g., Keong, Horani & Daniel, 2005). Moreover, several research studies have concluded that ICT has the potential to enhance students’ achievement and teacher learning. Many educators emphasized that the use of computers, for example, can
help students to become more knowledgeable, reduce the amount of direct instruction given to them and give teachers an opportunity to help students with special needs (e.g., Peressini and Meymaris 2004).

It is then clear that new technologies have twofold role: on the one hand, they can help teachers boost up their pedagogical practice and on the other hand they can back up students in their learning. According to Grabe (2007), technologies can play a fundamental role in building up students’ skills, motivation and knowledge. He claimed that ICT can be used to present information to students and help them complete learning tasks. However, it is noticed that ICT integration into education proves to be a tricky issue. Becta (2003) stated that there are a number of factors influencing teacher’s use of ICT and subsequent integration of the technology into teaching. These factors included: ICT resourcing, ICT leadership, ICT teaching, school leadership and general teaching. Becta also indicated that the success of the integration of new technologies in education varies from curriculum to curriculum, place to place and class to class, depending on the ways and the context in which it is applied.

4. Motivation and teachers’ use of ICT

Many practitioners and educators recognized ICT as an efficient mean for improving administration and delivery of information. They highlighted its significant role in promoting and enhancing the quality of teaching as technology facilitates the access to the information. For Sylvia and Hutchinson (1985), teacher motivation is based on the freedom to try new ideas, the achievement of appropriate responsibility levels, and intrinsic work elements. Motivation includes two categories: extrinsic or intrinsic. Intrinsic motivation arises from internal motivation that is to say when an individual is internally motivated to do something because it either brings him satisfaction or pleasure, or he believes in its value. In fact, intrinsic motivation occurs when the teacher experiences a sense of satisfaction, achievement, recognition, and advancement that encourage him to use and to sustain the use of technology resources. According to Weiner (1990), motivation is “determined by what one expects to get and the likelihood of getting it. This is related to self-efficacy i.e. belief that one is capable of performing in a certain manner to attain certain goals” (p. 120). According to Bandura (1977), “self-efficacy is the individual’s belief about his/her capabilities to produce designated levels of performance that exercise influence over events that affect one’s life”. (p, 69). Bandura has shown that self-efficacy has an impact on an individual’s psychological state and motivation. Individuals with low self-efficacy believe difficult tasks are beyond their capabilities; they are also likely to lose confidence in personal abilities. Agreeing with this argument is Ellis (1984), who posited that the teachers are mostly motivated by intrinsic factors which may include one’s self-efficacy. Phoenix (1975), in his work on personal, subjective, and intrinsic force that motivate teachers, stated that “…as I reflect on my experience as a teacher, what stands out for me personally is not what I or others regard as my success or failures, but the gratitude I feel for the unparalleled privilege of participating in one of the most exhilarating activities of mankind -- the social celebration of the meaning of human existence in all its majesty and mystery” (p, 75). According to Chigona & Chigona (2010), teachers who do not feel ready and confident to use the technology are unlikely to integrate it in their pedagogy. Other intrinsic factors affecting the use of technology in the classroom include lack of the skills required for ICT use and inadequate knowledge to evaluate the role of ICT into the teaching and learning process. According to Mishra & Koehler (2006), knowing how to use
ICT is required for the teachers to integrate technology in their teaching. Some teachers, for instance, do not use ICT in their teaching because they are computer-phobic (e.g., Sherman & Howard, 2012). As much as the teachers’ intrinsic factors towards ICT can affect the use of the technology in the classroom, extrinsic factors, could de-motivate teachers from implementing technology. Extrinsic motivation takes place when a individual is compelled or obliged to do something or act in a certain way because of external factors operating on him or her. Among the potential external factors in education we can numerate ICT policies in the schools, the technical staff, the working conditions and status, time constraint and the ratio of learners to a computer in the school’s laboratory. The lack of technical support for instance constitute a de-motivating factor (e.g., Lai, Trewen, & Pratt, 2002; Rogers, 2002). Teachers need adequate technical support to assist them in using different technologies for teaching purposes. Employing a limited number of technical support personnel in a school severely de-motivated teachers’ technology use. According to Cuban et al (2001) these technical support personnel are often overwhelmed by teacher requests, and cannot respond swiftly or adequately. Time constraint or Lack of time is an example of a de-motivating factor that influences teacher’s adoption of technology in classes (e.g., Butzin, 2001; Cuban et al., 2001; Karagiorgi, 2005; O’Mahony, 2003). It has been shown that Teachers need hours to preview web sites, to locate the photos they required for the multimedia project they assigned to students, or to scan those photos into the computers. 

5. Theoretical framework
This paper seeks to explore various factors that contribute in either motivating or de-motivating teachers to use ICT resources for teaching. For the purpose of this study, the motivational factors identified from teachers’ responses during the interviews are classified according to “Herzberg’s Motivation-Hygiene Theory”. Herzberg’s theory has been commonly used in various disciplines such as Information Sciences, Business, Engineering, and in Education particularly in teaching.

I choose this theory in particular because it is used to measure worker job satisfaction relying on the factors present within the job itself and within the environment in which the job is conducted (e.g., Herzberg, Mausner & Snyderman, 1959). The theory is often referred to as the two-factor theory as it includes hygiene factors (de-motivators) and motivational factors (motivators): hygiene factors need to be decreased where as motivational factors should be increased in order to increase job satisfaction, to develop a positive attitude towards work and to enhance job performance. Herzberg et al. (1959) states that motivational factors comprise: work itself; achievement; recognition; opportunity for advancement and possibility of growth. These factors stimulate motivation development which leads to job satisfaction.

The “Work Itself” category denotes the actual content of a job, i.e. what the individual is required to do at work (Herzberg, 1987). In the educational field, teachers are responsible for teaching learners, hence in this study the “Work Itself” category refers to the teaching activities incorporating ICT resources (i.e. technology-based activities). For teachers, “Work Itself” as a motivational device depends on internal intentions about the teaching and their self-efficacy concerning what they need to do in their work. It is believed that teaching requires personal motivation, self-pride, professional satisfaction and individual expectations (e.g., Sylvia & Hutchinson, 1985). By capturing these effects of individual motivations, teachers could endorse a strong commitment to teaching. “Achievement” category refers to
individuals being successful in completing tasks associated with their job; these achievements lead to individuals experiencing psychological growth (Herzberg, 1987). Achievement motivation encompasses the tendency to try, to succeed and to choose goal-oriented success. Teachers ensure that they undertake targets they are sure to achieve (e.g., Bishay, 1996). Individuals who are achievement motivated are more concerned with their success than its rewards.

Part Two: Methodology
1. Research questions
   - What motivates or de-motivate teachers to integrate ICT in their teaching and learning activities?
   - What are the teachers’ perceptions towards an effective ICT integration?

2. Data collection
   - Participants
   The total number of the participants is 40 consisting of teachers teaching in four different secondary public schools in the region of Gabes. The sample includes 10 teachers of English, 10 teachers of French, 10 teachers of science and 10 teachers of physics. Mean age of the participants is 45 and most of them have at least 7 years of teaching experience.

   - Data collection Tools
   Semi-structured interviews are used as a data collection instrument. Participants are asked to answer the questions considering the factors that motivate them to use some aspects of the technologies in the teaching process. The semi-structured interviews provide meaningful insights about teachers’ perceptions of ICT. They include a series of questions that are an opportunity for teachers to reveal the motivation factors that lie behind their use of ICT for teaching and to express their views about ICT and its implementation in the classroom.

   - Research design
   Qualitative research approach is employed to collect and scrutinize data. According to Rubin and Babbie (1989), this approach is efficient when the researcher aims to grasping meanings of real experiences of the participants, as well as getting a rich description of phenomena under examination. The sample for the study includes 40 teachers teaching in four distinct schools which are located in Gabes. The focus of the study is predominantly on teachers who are using ICT resources in teaching. For anonymity, no names of the participants are used in the reporting on the findings. The analysis of the qualitative data collected from teachers’ responses follow a deductive content analysis. The motivational factors identified are categorized following the Herzberg’s motivation-hygiene construct which comprises two categories: motivation factors (Work Itself and Achievement) and the hygiene factors. The analysis targeted what the participants perceived to be motivating factors for them to use as well as to sustain the use and integration of the technology into their teaching. Deductive analysis in this study aims at using the concepts from Herzberg’s theory as guiding concepts. While analyzing the data, I exclusively looked for factors in relation to the concepts of Work Itself, professional satisfaction, Achievement, work conditions and school policies.

3. Study significance
The importance of the subject study is a result of the following issues:
   - It allows reaching a simplified understanding of the factors that motivate or de-motivate teachers to implement technology for their classes.
- It aims at drawing attention to the de-motivating factors that should be decreased.
- It encourages the use of technology for teaching purposes through exposing the benefits of ICT on both teachers and learners.
- It highlights some criteria for an effective ICT integration in the teaching process.

4. Results and discussions
Semi-structured interviews are designed to collect evidence from teachers about their ICT experiences, expertise and use in teaching as well as their attitudes to the value of ICT for teaching and learning and to the factors that motivate them to implement technology for their classes. The results reveal some positive factors which motivate and encourage teachers to apply some aspects of technological devices inside the classroom setting.

The findings related to the motivational factors are presented under Herzberg’s categories of motivation factors (Work Itself and Achievement) and hygiene factors (Work conditions and school policies, time constraint and scheduling).

4.1 The classification of the reported motivational factors according to Herzberg’s theory

4.1.2 The motivational factors

- **Work Itself as a motivating factor /Professional satisfaction**

The analysis of the participants’ responses highlights the link between ICT and professional satisfaction factor. The results show that all the participants derive professional satisfaction in implementing the technology for their teaching. It is then deduced that teachers’ satisfaction with their work is highly influenced by the use of the technology. The teachers report that they are feeling satisfied, pleased and motivated to teach as long as the use of ICT proves to make teaching easier, more interesting and more enjoyable.

For example, science teachers find the use of ICT resources in the teaching of science most rewarding and fascinating. They indicate that they are using the ICT resources for explanation and elucidation of sophisticated scientific concepts and theories such as genetic multiplications or neuronal development or cell division or chromosomal duplication.

Similarly, teachers of physics admire the benefits of ICT in helping to simplify and demonstrate some complicated experiments. One teacher of physics states that: “in the laboratory, we can work more easily with interactive physics applications, graphs, graphing motion and diagrams. Sometimes, I resort to “Web sciences Internet Modules” which utilizes a collection of carefully crafted questions to improve students' conceptions of physics. It contains files that have been combined with web-based instructional resources to engage pupils in an exercise in thinking, reflecting and learning. Students are enjoying using these for practice and we as teachers can sometimes use them as homework assignments. The “JF-Noblet” also is very helpful; it consists of a collection of web pages which feature interactive files that illustrate physical situations. Pupils can use a variable and observe the outcome of the change on a physical situation.”

The teachers hint also to other motivational factors associated with the use of ICT. They asserted that the integration of new technologies helps a lot in getting the pupils more engaged and involved in their own learning. Teachers of foreign languages (English and French), for example, advocate for the application of technology. They believe that ICT have a significant
power in attracting the pupils to learn and discover the foreign language. One teacher of English comments “pupils are more motivated and willing to discover the language…they become keen on knowing culture, civilization and native speakers of that language…they became highly motivated to talk and communicate using English…they even feel more responsible for their own learning…and when you are certain that your pupils are motivated and they tell you that they look forward to attending English sessions, you –as a teacher- feel extremely satisfied and happy with your job”.

In the same vein, most of the teachers claim that they are using the computer laboratories for various academic purposes. They noted that pupils are doing most of the research for their assignments by using the computers. It is notable that the participants feel comfortable in using the available technology in their schools for especially challenging tasks and they have developed a sense of collegiality which makes them feel at ease and more satisfied with their profession. The teachers asserted that availability of technology resources deemed valuable and necessary for the schools.

❖ Achievement

The sense of achievement is typically felt as a buzz of happiness that is proportionate in intensity to the effort and obstacles that were overcome in achieving. The need for achievement is driven, to some extent, by the need for a sense of control of the environment. Achievement in particular is evidence that we can influence what happens around us. It can also boost our sense of identity as our achievements help define our self-image. The sense of achievement can be gained just from a personal sense of satisfaction.

In education, Teachers need to have a sense of achievement when using the ICTs. This sense of achievement stimulates teachers to sustain the use and the integration of ICT resources for their teaching. The analysis of the interviews shows that the teachers are preparing the ground for future ICT successes in the classroom through self-empowerment which consists in learning how and when to use and incorporate ICTs in their teaching. Teachers believe that when using ICTs, the pupils learn more and experience the different ways in which the technology could be used within their classroom. One teacher indicates that the reason behind sustaining the use of the ICT is that it gives him a sense of empowerment. He said “what encourages me to sustain the use of ICT is that attractive access to a wide variety of e-resources. ICT in teaching opens new horizons and new avenues for information. It empowers the teacher and enriches the teaching process”.

Moreover, pupils need to use the information in order to develop their own opinions and appreciate the knowledge gained. The teacher of English said “ICT in teaching the English language is a passport that takes you to the real world of that language. It liberates the teacher from the heavy old burdens of some non-authentic activities of the English textbook. You can teach your pupils pronunciation and communication strategies through authentic listening to native speakers’ discussions (through video-conferences…). It renders your classroom an authentic context for better learning”. Most of the teachers in this study seem to experience this sense of achievement when they succeed in revolutionizing their teaching materials through a goal-oriented adoption of new technologies.
4.1.3 The hygiene factors:

- **Work conditions and school policies**

The analysis of participants’ responses reveals that half of participants in this study are disappointed with their schools deficient technical support. When teachers are incorporating the technology in education, they suppose their lessons and activities to be achieved without any technical or power failure interruption. Schools as a result are expected to ensure the availability of the technical support. Some teachers claim that “even a simple hiccup took much time to be repaired”. Even if they are motivated and they long for using ICTs in class, the lack of efficient technical support in some schools de-motivates some teachers from planning to use the technology for their teaching. One teacher mentions “even though I do believe in the benefits of ICT, I feel hesitant to go the laboratory because I know that there would be no technical support available to repair any unexpected technical problem…you know that for teachers time is precious…I don’t want to waste time”. Consequently it seems that without the required technical support, teachers are de-motivated to integrate ICTs into class. The UNESCO World Education Report (1998, p 15) notes that:

> “The new technologies challenge traditional conceptions of both teaching and learning and, by reconfiguring how teachers and learners gain access to knowledge, have the potential to transform teaching and learning processes. ICTs provide an array of powerful tools that may help in transforming the present isolated, teacher-centred and text-bound classrooms into rich, student-focused, interactive knowledge environments. To meet these challenges, schools must embrace the new technologies and appropriate the new ICT tools for learning. They must also move toward the goal of transforming the traditional paradigm of learning.”

Moreover, the results show that the teacher’s decision to employ ICT resources in the classroom is influenced by other external factors such as learner-computer ratio. A quarter of the participants who were willing and admire the benefits of integrating ICT in teaching seem to regret the fact that it is not easy to use the technology for teaching, because their schools do not afford computers for the number of learners they have. One of the teachers indicates that: “The computers in the laboratory are not enough for our large classes, so when teaching, a number of learners sit on one computer, which makes it tough to teach them”. So it is really hard for both the teachers and the learners. In such situations, many teachers feel de-motivated to apply the technology for teaching. As Bennell (2004, p12) noted that “Increasing hours of work, larger class sizes, and constantly changing curricula are cited as major de-motivators in many countries. Large class sizes and heavy workloads also make teachers resistant to the introduction of new teaching methodologies and other innovations.”

As reported by half of the teachers in this study, some pupils with few or no computer skills in a computer laboratory influence the teaching and learning process negatively. Accordingly, a major investment is needed by educators to develop the computer skills of such learners. Half of the participants in this study are concerned in this view. One of the teacher states: “When I decide to take my students to the computer laboratory for a lesson, it is so annoying because I waste too much time explaining to some pupils how to use the computer instead of...
concentrating on the subject content”. Thus, teachers tend to avoid the integration of ICTs when dealing with pupils who lack computer skills and need assistance in using the technology. This situation is time consuming and causes disturbance because some pupils lack preparation for use of ICT resources. According to Jung (2003), combining new technologies with effective pedagogy has become a daunting task for different institutions.

- **Time constraint and scheduling**

  Due to time constraints, the teachers have limited opportunity to express their creativity, to be innovative, to benefit from the available facility and to gain initial familiarity with new hardware or software, learning and practicing for effective use of the technologies for curriculum delivery. Thus, another factor is linked to the time required to successfully integrate technology into the curriculum. Then, this difficulty of access which caused by time limit, may negatively influence some teachers’ attitudes and perceptions towards combining ICT into their pedagogy. Some of them even decide to avoid understanding, familiarizing and adopting the technology.

  Besides, it is believed that scheduling gives individuals control over the job they are doing. The teachers (especially those who use computer-lab) complain about the time allocated for their subjects. They argued that the scheduling of the time-table regarding the use of the technology need to be reconsidered. Because they could not cover much in a lesson, some physics teachers in this study felt unenthusiastic from using the lab for teaching. They opt for not to use ICT resources because they are under the pressure of finishing the syllabus on time. Most of the teachers argue that they are not given the responsibility required to effectively control the use of the technology for teaching.

**Conclusion**

The rapid diffusion and adoption of information and communication technologies (ICT) is fuelled by the belief that ICT is fundamental for enhancing learning and improving the quality of teaching. This article studies the different motivational factors affecting teacher’s use of ICT relying on Hezrberg’s theory. The findings have brought to light interlocking factors that affect teachers’ take-up of ICT. These are teacher’s self-satisfaction with his/her own work, the sense of achievement linked to ICT use. The results of the study hint that although the majority of the teachers feel comfortable and eager to use ICT as they believe in its advantages on education, schools seem to provide no support network for teachers who are not confident enough to take up ICT and give little time to teachers to manage and familiarize themselves with ICT. Thus, schools seem to be slow in embracing ICT, and there is a struggle for change. Similarly, Cuban et al (2001) claim that schools are firmly grounded in cultural beliefs about the student teacher and not student-machine relationship and this dominates schooling. Thus, there is little scope for opportunities to adapt to technologies. However, Dawes (1999) argues that teachers are welcoming of the changes computers bring, and do make changes and choices in the materials they are asked to use on a regular basis. Limited resources within schools are a great impediment to the take-up of ICT. Lack of computers and software in the classroom can seriously limit what teachers are able to do with ICT. Teachers need to be provided with adequate facilities and training to be able to use those facilities in order to progress in a technology-rich context.
References


Appendix

- Give me a general view of your current/previous teaching experience using ICT.
- Do you use technology in your classes? If so, why do you use it? If not, why not?
- What interests you most about ICT integration in education?
- Can you describe the impact and benefit of using technology on the pupils?
- What ICT resources do you generally use for your classes and Why?
- Think of a problem you had to deal with when implementing ICT in the teaching process. Tell me exactly what had been happened and how you handled it.
- Describe a situation in which you might find it justifiable to rely on ICT resources.
- What types of things or situation have made you unpleased or unsatisfied while using ICT in class? How did you react to those situations?
- Do you think teachers have to be trained in technology use in order to employ technology based activities?
- Are you comfortable with the quality of skills required for ICT use?
- What can be done to help teachers to use technology effectively in the classroom?
- What do you think teachers require in terms of personal or technical support in order to integrate technology in class?
- Can you give me an example of when you came up with a clever way of motivating your students through ICT integration?
- Give me an example of a time when you got really motivated to use ICT at work.
- Give me an example of a time when using ICT in class with pupils was difficult. Give me an example of how you handled it.
- In what kind of work environment you felt most comfortable?
- What criteria are you using to evaluate ICT integration?
- Are you willing to implement ICT resources into teaching?
- What motivates you to put forth your greatest effort in using ICT for your classes? Describe a situation in which you did so.
- In what ways have your college experiences prepared/helped/encouraged to implement technology based activities?
- How do you determine or evaluate the role of ICT in education.
- In what ways do you think you can make a contribution to your pupils when you use ICT?