# NASARAWA STATE UNIVERSITY KEFFI FACULTY OF NATURAL AND APPLIED SCIENCE DEPARTMENT OF COMPUTER SCIENCE

**CMP319 (RESEARCH METHODLOGY)** 

**ASSIGNMENT** 

 $\mathbf{BY}$ 

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# The Impact of Information and Communication Technology (ICT) on Educational Improvement

### **Abstract**

Information and communication technology has become an inseparable part of human life and caused doing things more through the consumption of less time and cost. The present research aims to study the effect of information and communication technology on the educational improvement of third grade high school students in Khash-Iran. The research was a descriptive survey. The population included the third grade high school students of Khash city who were about 1900 people studying in 35 educational units in 2010. The sample size was determined using Kirgizia and Morgan statistical tables and was determined to be 320 people. Random multistep method was employed for sampling among male and female students in proportion with the community size. A researcher-made 24-quenstion questionnaire with a grading scale of Likret type was used for data collection whose validity and reliability was confirmed by Cronbach's  $\alpha$ . The method of measurement type was used for data analysis; frequency distribution table, frequency percentage and diagram drafting were used descriptive statistics section, The Khi (chi-square), U Mann –Whitney and Kruskal-Wallis statistical tests were used in inferential statistics section with regard to the measurement scale. SPSS was used to analyze data. Research findings reveal that using information and communication technology is effective in increasing educational motivation, improving questioning skill, improving research spirit and raising school marks. It is generally effective on third grade high school students' educational improvement to a great extent. This effect was the same among male and female students with different average scores, ages and fields. However, its effect on vocational and high schools students was different.

### Introduction

Information technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise. The term is commonly used as a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones. Several industries are associated with information technology, including computer, hardware, software, electronics, semiconductors, internet, telecom munications equipment, engineering, healthcare, e-commerce and computer services.

### General hypothesis:

- 1. Using of information and communication technology has an impact on the educational improvement of third grade high school students.
- 2. Using of information and communication technology has an impact on increase in educational motivation of third grade high school students.
- 3. Using of information and communication technology has an impact on increase in question-making skill of third grade high school students.
- 4. Using of information and communication technology has an impact on increase in research spirit of third grade high school students.
- 5. Using of information and communication technology has an impact on increase in curricular scores of third grade high school students

### **Research Methodology**

Regarding to the mentioned goal and hypotheses in this study, research approach is descriptive one of survey kind.

Statistical population in this research has been all third grade secondary school

students in high schools and art academies in khash province by a population of 1900 persons who are studying in 35 academic units during academic year 1388-1389, which out of them, 320 persons were selected by kerjisi and Morgan table as samples.

In this study, two library (using library books, theses, journals, Quarterly and valid and related to research (research-related) electronic journals) and field methods by a questionnaire containing 24 questions realized by likert spectrum which had been compiled proportional with the hypotheses, are used for data collection. Its content reliability in terms of guidance professors and counselors and a number of educational science group professors, view was confirmed. In order for research data analysis, two statistical methods of descriptive and deductive kinds were used. In descriptive analysis, statistical characteristics such as frequency, frequency percentage and diagram drawing were used. In deductive analysis, for data analysis by nominal scale,, and in relation to data by relative scale regarding to independent groups.

### **Benefits**

- 1. With the advancement in IT, one can access the system of the company from any place. It is not necessary for the authority to be in the office only. They can submit their work from home as well. Easy access to the system has surely increased one's productivity without any physical presence of the person in the office.
- 2. There is a huge demand for IT professionals in various fields. The demand opens an immense opportunity for IT professionals to explore the field and show their talent. The IT field offers people to work for computer programming, system analysis, testing, software and hardware development, web application design etc.
- 3. With the advancement of information technology, the education field has transformed its outlook and has adopted a modern way of teaching and learning. Teaching on the blackboard is now an old thing. Teachers and institutions are using modern gadgets to teach their students. A computer with

an internet connection helps students to learn new things and understand the topics easily and deeply.

- 4. Information technology helps patients as well. They can now connect with physicians and take advice online. Also, there are many virtual healthcare applications available to provide guidance. Electronic health records and tele-medicines are delivering efficient and quality health to patients.
- 5. In the technology world, with information technology, the drawback of time and distance in business activities has been removed. Now, buying and selling are too easy. Customers can buy online from their locals and international vendors as well.

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