

A Pupil-Centric Analysis in the Teaching-Learning Process of Information Technologies Using ICT in Albanian Schools

Elda Xhumari

Informatics Department, Faculty of Natural Sciences, University of Tirana

Suela Maxhelaku

Informatics Department, Faculty of Natural Sciences, University of Tirana

Alba Como

Informatics Department, Faculty of Natural Sciences, University of Tirana

Odeta Shkreli

Informatics Department, Faculty of Natural Sciences, University of Tirana

doi: <https://doi.org/10.37745/bje.2013/vol12n41418>

Published April 11, 2024

Citation: Xhumari E, Maxhelaku S., Como A. and Shkreli O. (2024) A Pupil-Centric Analysis in the Teaching- Learning Process of Information Technologies Using ICT in Albanian Schools, *British Journal of Education*, Vol.12, Issue 4, 14-19

ABSTRACT: *In the digital age, the importance of ICT education and the challenges of the education sector cannot be overstated. The aim of this study was to evaluate the current situation in the tenth to twelve grade pre-university institutions through a questionnaire administered by the pupils in those classes. The questionnaire specifically requested feedback regarding the teaching quality in ICT, the functionality of ICT laboratories in their schools, the adequacy of ICT equipment used during lessons, the availability of internet access on school premises, the utilization of various software for ICT learning, and the specific areas within ICT where students required additional learning.*

KEYWORDS: Albania, ICT, teaching-learning process.

INTRODUCTION

Nowdays, pupils are increasingly reliant on technology for daily activities, but there is a need to enhance their digital competence within the formal educational context. Research shows that students use technology more outside the classroom than in the learning process. However, the biggest challenge is for teachers. The teachers need

_____ Publication of the European Centre for Research Training and Development-UK
specific digital competences that enable them to use technology to support, improve
and transform the teaching-learning process as well as for other responsibilities in
school. (ASCAP, 2020)

“ICT application for teaching Information Technologies” is a project founded by
AKKSHI (National Agency for Scientific Research and Innovation), implemented by
Informatics Department, Faculty of Natural Sciences in Tirana University during the
period 2022-2023. The aim of the project is building an innovative model of teaching
information technologies through ICT.

METHODOLOGY

The study included a representative sample of 512 students, with 60% being female.
The response rate for the study was 96.29%. The sample consisted of students from
grades ten to twelve, with a breakdown of 32.80% in tenth grade, 30.18% in eleventh
grade, and 37.02% in twelfth grade. The data collection for this questionnaire took place
in February 2023.

The survey employed in this study was designed as a multiple-choice evaluation
instrument, which prompted students to evaluate various aspects of their ICT education
experience. The questionnaire specifically requested feedback regarding the teaching
quality in ICT, the functionality of ICT laboratories in their schools, the adequacy of
ICT equipment used during lessons, the availability of internet access on school
premises, the utilization of various software for ICT learning, and the specific areas
within ICT where students expressed a desire for additional learning.

In order to promote transparency and ethical behavior, all participants were provided
with comprehensive information regarding the study's objectives and procedures,
thereby facilitating a fair and well-informed participation process.

RESULTS

When assessing the ICT competence of teachers in the ICT field, a considerable
proportion of pupils expressed their opinions. Approximately 70% of the students
affirmed that their teachers were suitably equipped to deliver ICT instruction in ICT
subject. On the other hand, it was found that 15% of the students held the belief that
their teachers possessed adequate preparatory for only specific components of the
curriculum. Additionally, the remaining 15% of students reported deficiencies of ICT
skills in their teachers.

In addition, this study finds that a significant proportion of schools face difficulties
when it comes to having operational ICT laboratories. Remarkably, 86.95% of schools
only have one working laboratory, limiting student access. 10% of schools have two or
more fully operational laboratories.

Publication of the European Centre for Research Training and Development-UK
Regarding infrastructure used for the ICT subject in schools, almost all schools provide computers or laptops for pupils' use. However, the diversity and suitability of equipment in schools differ significantly. In 20% of schools there is a lack of ICT equipments. Consequently, it can be inferred that approximately 70% of the schools, as resulted by the pupils's questionnaire do not possess a sufficient quantity of functional and high-quality ICT devices.

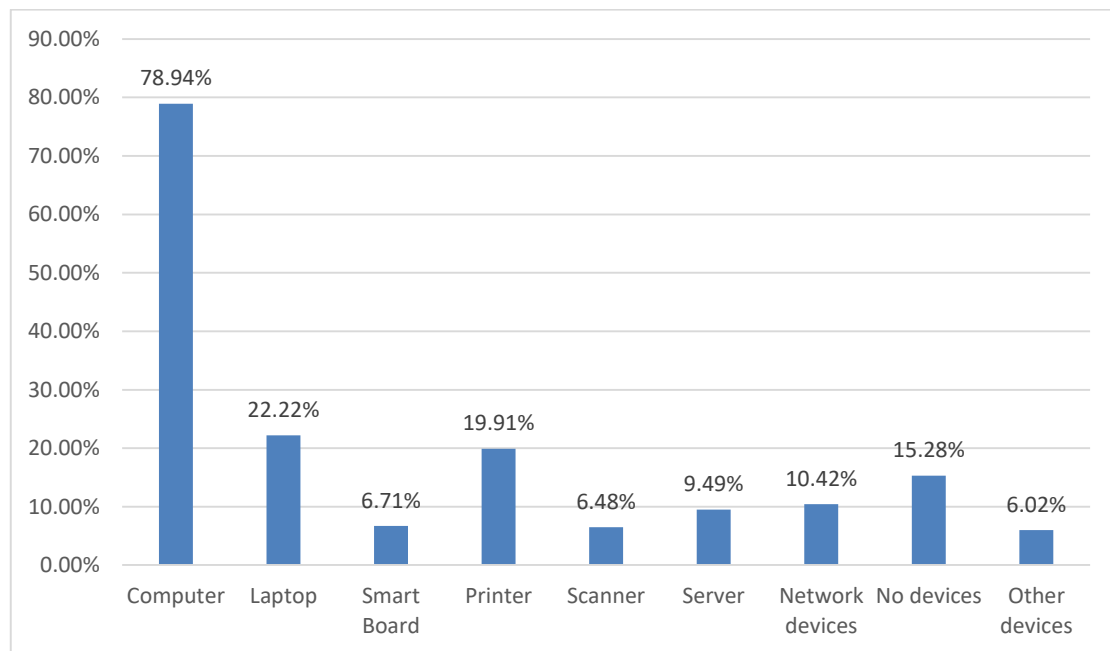


Figure 1. ICT devices used for teaching ICT in school (labs or classes).

With regard to internet connectivity, our findings reveal that approximately 50% of the surveyed pupils reported that in their schools have access to the internet, while the remaining 50% either lacked internet connectivity or had access to low-speed internet services.

Our research indicates that pupil's utilize a variety of software applications. Microsoft Office, Adobe Photoshop, Scratch, and Dev-C++ are the most frequently used tools by the pupils. Their responses are presented in the following figure:

Publication of the European Centre for Research Training and Development-UK

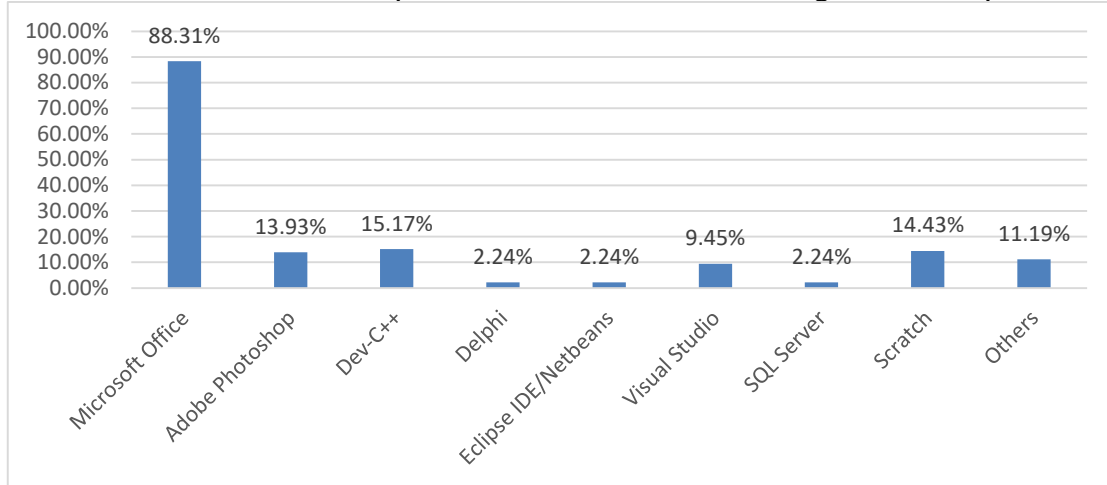


Figure 2. ICT devices used for teaching ICT in school (labs or classes).

Although technology is widely used by the pupils, the survey indicates that students frequently notice a lack of supplementary literature or resources from teachers to enhance their digital learning experiences. Although students generally view the curriculum as thorough and up-to-date. Moreover, our research highlights that the primary place where learning takes place are the conventional classroom settings, with a substantial amount of instruction taking place in laboratories.

In addition, mainly the students have expressed their interest in furthering their knowledge in computer usage (around 50%) and in programming languages (around 45%). The following figure presents the graphical representation of the specific areas within ICT where students expressed a keen interest in deepening their knowledge.

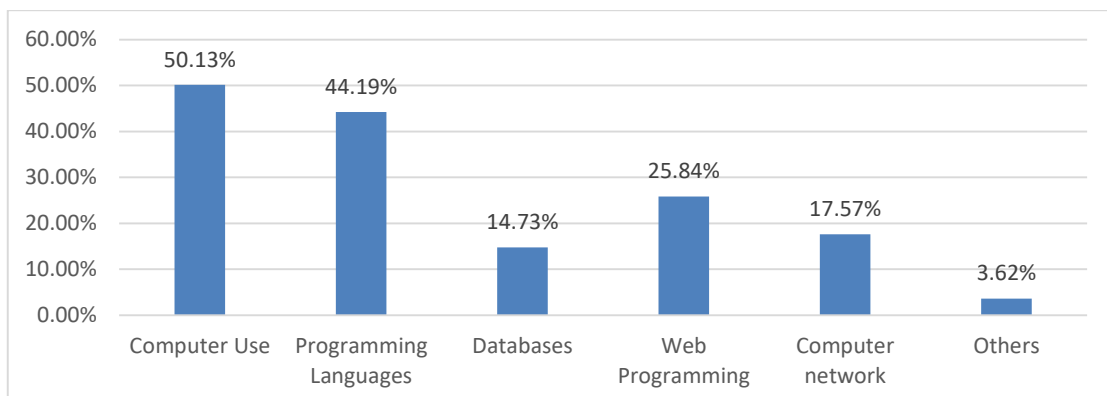


Figure 3. Areas of student interest for further learning in ICT

CONCLUSION

There is a need for major improvements to the infrastructure that supports the development of ICT subject in high schools. A considerable number of schools do not have specialized ICT laboratories, and among those that do, many experience issues with their functionality. This research has identified the need of the pupils to be trained in specific areas, such as programming languages, computer use, etc. In addition, this research has identified the need for a dedicated online platform focused on ICT education. The development of this online learning platform will serve as a practical and necessary solution to meet the needs of students and support classroom teaching.

FUTURE RESEARCH

As the findings of this research highlights the need for an online learning platform, in our future research work we will focus on the development and implementation of this platform tailored to the specific needs of the pupils in the ICT education. This will involve different stakeholders in order to maximize pupils and teachers engagement and enhancing their learning experience. The online learning platform should provide digital resources to diverse learning needs and different groups of pupils and teachers.

Conflicts of interests: None declared

Funding: “*ICT application for teaching Information Technologies*” is a project founded by AKKSHI (National Agency for Scientific Research and Innovation), implemented by Informatics Department, Faculty of Natural Sciences in Tirana University.

Data availability statement: The data presented in this study is available on request.

REFERENCES

ASCAP (2020) *Training manual “Use of ICT in teaching learning-process”*, ASCAP, UNICEF, Tirana, Albania, FINAL-MANUALI-I-TRAJNIMIT-PER-ICT-16.03.2021-1.pdf (ascap.edu.al), pp. 4.