E-Learning practices of medical undergraduates of the Faculty of Medicine, University of Kelaniya

Group D.1.4

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Introduction

- E-learning is defined as "the use of electronic media, educational technology and information and communication technologies in education"(1,2).
- Despite being a globally explored topic, only limited research is conducted in the local setting.
- Moreover, relative contribution of different e-resources towards different aspects of learning has not been a focus of any study.
- Therefore, it is an interesting area to explore to extend our understanding on the topic with possible practical implications.

General Objective

- To describe the practices of e-learning employed by medical undergraduates of the Faculty of Medicine, University of Kelaniya, Sri Lanka.

Materials and Methods

- **Study design**: Descriptive cross sectional study
- **Study setting**: Faculty of Medicine, University of Kelaniya, Sri Lanka.
- **Study period**: November 2019 to January 2020
- **Study population and sampling**: 390 consenting students in second(batch 29), third(batch 28) and fourth year(batch 27) of study
- **Data collection**: Pre- tested self-administered questionnaire
- **Data analysis**:
- PSPP statistical data analysis software was used to obtain descriptive statistics on the usage of different e-learning materials. Moreover, Anova test was employed to compare the mean use of different e-learning tools across three batches.

Results

- Response rate was 31.8% (second year), 32.8% (third year), 34.6% (fourth year). 64.1% were females and 35.9% were males.
- Mean age of the group was 23.55 years.
- Subscales measuring the level of competency in computer usage (alpha = 0.87), the differential uses of E-resources (alpha=0.90), usage of supplementary learning material (alpha=0.78) had good reliability.

Time spent daily on using Technology (Figure 1):

- Majority of students across all batches use technology 1-2 hrs/day for learning purposes (52.19%,203), for social media (42.31%, 165) and internet use for other purposes (39.74%,155).
- There is no statistically significant difference (P>0.05) across batches when comparing means.

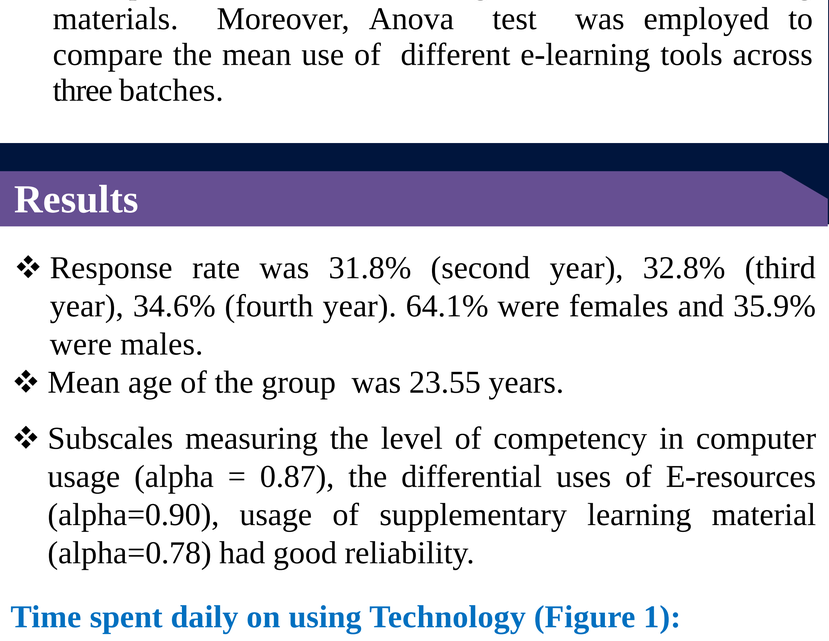

Figure 1: Time spent daily on using technology

Competency in using computer applications (Figure 2):

- Majority of students in all three batches (>50%) had above average competence in using most computer applications except Data analysis software like Excel and the Faculty Learning Management System (LMS).
- However, Competence in using LMS has improved for junior batches.
- No statistically significant difference (P>0.05) in the mean competence of using all applications across the three batches.

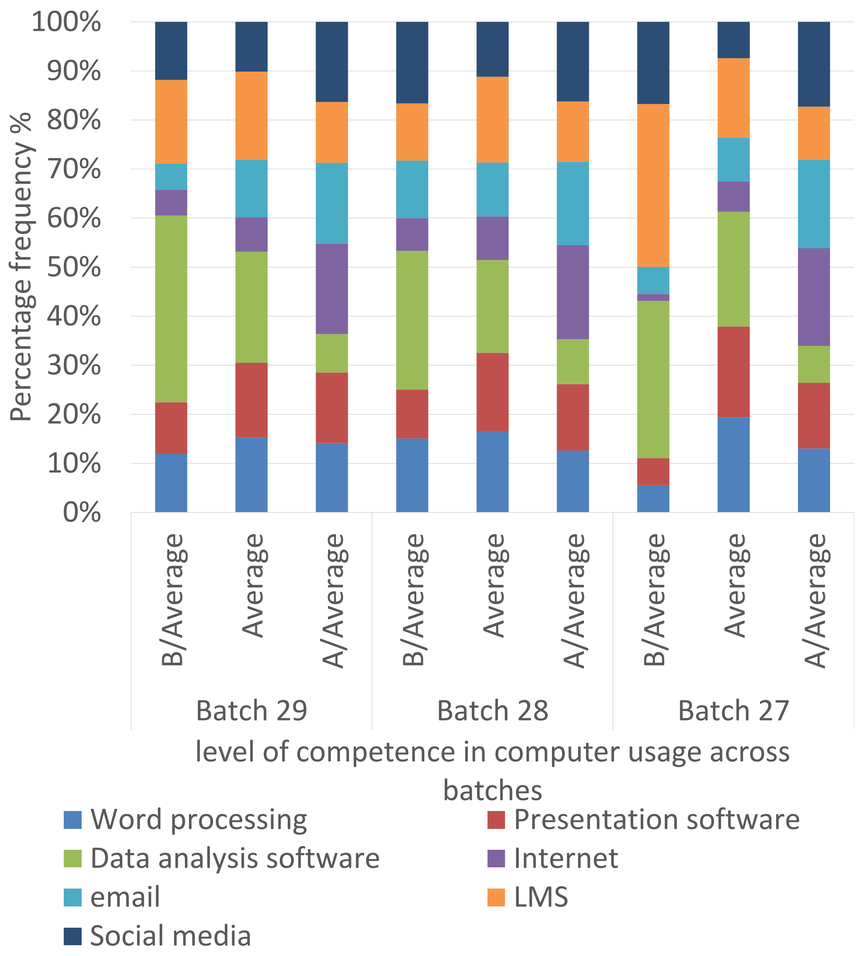

Figure 2: Competence in using computer applications

Differential use of e-learning resources (Table 1, Figure 3):

- Among different e-learning resources, videos are the most preferred followed by e-books/lecture handouts or Google search for many students across batches to achieve their learning goals.
- Referring to lecture handouts/ other presentations/e-books are preferred for obtaining detailed information on a topic or as a means for exam preparation.

	Learning goals	Most preferred	Second most preferred
A	Obtaining detailed information	E-books/ handouts	Google search
B	Make the learning process more interesting	Videos	E-books /Handouts
C	Retain knowledge better	Videos	E-books /Handouts
D	Helping to visualize better	Videos	Online groups
E	Get simplified knowledge	Videos	E-books /Handouts
F	Gather more facts within a minimum time	Google search	Videos
G	Get an overview	Videos	E-books /Handouts
H	Understand difficult subject matter	Videos	Google search
I	To get access to easy methods of memorization	Videos	Google search
J	Prepare for assessments	E-books/ handouts	Google search

Table 1: Preferred methods of e-learning to supplement learning among medical undergraduates

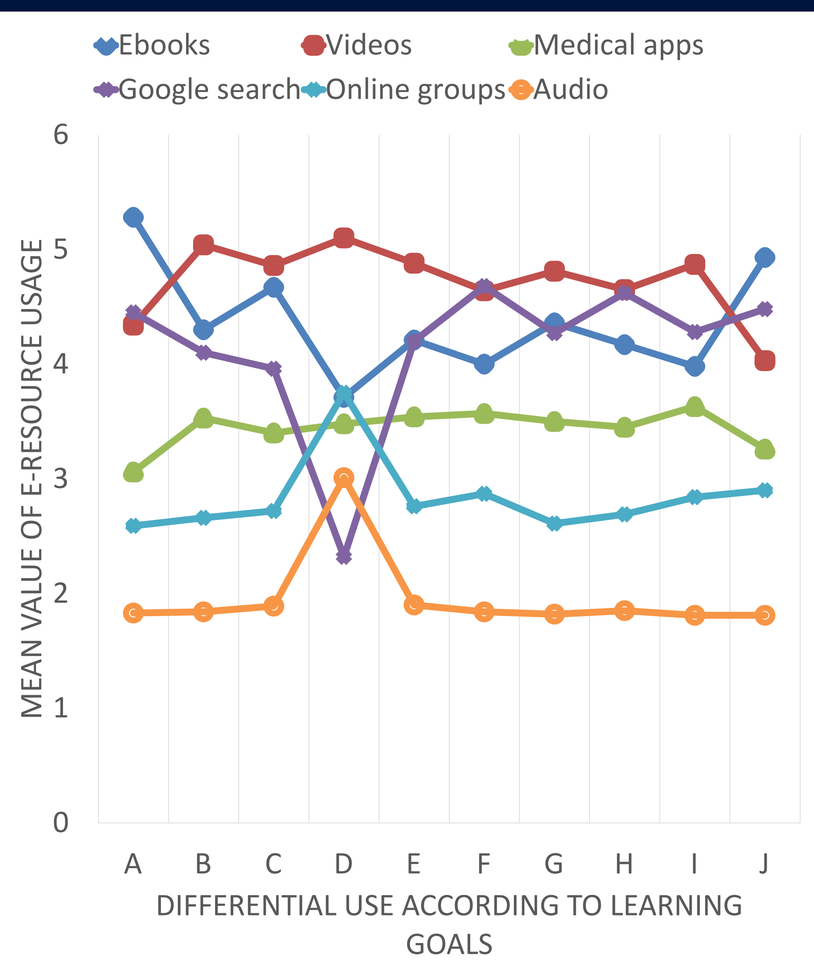

Figure 3: Relative use of different e-learning methods according to learning goals

Conclusions and Recommendations

- Students of the Faculty of Medicine, University of Kelaniya, Sri Lanka are competent in using many computer applications to facilitate their learning.
- Majority prefer multimedia and internet resources for learning. However, some still choose didactic learning resources to prepare for assessments and to obtain detailed information, reflecting their narrower focus to learning.
- This highlights the need to guide students to use their technology competences effectively to be more self directed learners.
- Therefore, there is scope for continued training on technology use for education and the use of the Faculty LMS as a guide for directing students towards authentic learning resources.
- Faculty also needs consideration of better use of assessments to encourage deep learning among students.

References

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