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OPEN PEER REVIEW

Study of Computer and Technology Literacy of Students at Abadan University of Medical Sciences in the Year 2024

Hassan Bostan

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

More about open peer review: brieflands.com/knowledgebase/opr

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1 Original submission

4 comments · 16 Jul 2025 – 29 Jul 2025

Narjes Sargolzaei Reviewer

MAJOR REVISION 16 Jul 2025

Thank you for submitting your manuscript. We appreciate your contribution and the effort invested in addressing an important topic. Below is a structured critique based on the STROBE checklist for cross-sectional studies.

Title and Abstract

• Title:

The title does not include the year of the study, which is important in cross-sectional designs—especially for topics like technological literacy that can change rapidly. Please include the Gregorian year (e.g., "2024") for clarity and relevance.

• Abstract:

The abstract lacks detail on the structure of the questionnaire and scoring system. Include a brief summary of the questionnaire's sections and how scores were interpreted (e.g., Likert scale from 0 to 4).

Introduction

• Background:

Multiple overlapping definitions of computer literacy, IT, and digital tools are provided. These should be condensed into a single, strong definition early in the section to avoid redundancy and improve focus.

• Objectives:

The study's aim is presented, but it would benefit from a more explicit statement of objectives.

Methods

• Study Design:

The study is correctly identified as "descriptive-analytical cross-sectional." However, the use of the Iranian calendar (1403) may confuse international readers. Please specify the equivalent Gregorian year (e.g., 2024) or clarify the calendar used.

• Setting:

The academic setting is mentioned, but the exact data collection period should be clearly stated.

• Eligibility Criteria:

Inclusion and exclusion criteria are generally appropriate but could be written in more formal terms. The number of academic disciplines and educational levels is not specified, and it is unclear why only a few selected fields of study were included in the research. The field of study and educational level should also be taken into consideration. The study groups have been categorized very broadly, despite the wide diversity of fields and academic levels within each faculty. The inclusion and exclusion criteria are not sufficiently justified or logical.

• Variables:

Key variables are identified, but definitions of digital and computer skills should be made more precise, especially when referring to subdomains like "new technology skills."

• Data Sources / Measurement:

The questionnaire sections are explained, but some descriptions are ambiguous. Mentioning that validity was assessed by four experts is good, but it would be stronger if you specified the type of validity evaluated (e.g., content validity, face validity). Also, specify if the same Likert scale was used throughout and how responses were interpreted.

• Bias:

Potential sources of bias are not addressed. Briefly discuss efforts to minimize response or sampling bias.

• Study Size:

The sample size (n=300) is given, but no sample size calculation is mentioned. Explain how this number was determined.

• Statistical Methods:

Statistical analysis is briefly described. You mentioned that the study is descriptive-analytical, but no analyses or statistical tests have been performed.

Results

• Participants:

The total number of questionnaires distributed, excluded, and analyzed is mentioned. However, the distribution by academic year, field of study, and gender should be clearly detailed in a demographic table to assess representativeness.

• Descriptive Data:

Add a table showing participant characteristics.

• Outcome Data and Main Results:

Percentages and mean scores are reported interchangeably—please use a consistent metric. Clarify the scoring scale and report any statistical significance for group comparisons (e.g., gender or faculty). Reporting confidence intervals or p-values would strengthen the analysis.

• Other Analyses:

Some subgroup comparisons are noted (e.g., by gender or faculty), but the results would be more robust with formal statistical testing and effect sizes.

Samaneh Naeimi Reviewer

ACCEPT 25 Jul 2025

This study can be a basis for other more advanced studies. The method is well explained. However, it is recommended that the translation be made more accurate and natural.

Associate Editor

MINOR REVISION 27 Jul 2025

Public Comment:

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• Other Analyses:

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Decision:

Major revision

Public Comment:

This study can be a basis for other more advanced studies. The method is well explained. However, it is recommended that the translation be more accurate and natural.

Decision:
Accept

Editor-in-Chief

MAJOR REVISION 29 Jul 2025

Thank you for submitting your manuscript. While your research shows potential, we have identified significant concerns regarding the language quality and clarity of the manuscript.

Please note that if the language issues are not adequately addressed in the revised version, your paper may still face rejection in the next review stage, regardless of its technical merits. To ensure a fair evaluation, we strongly advise you to carefully improve the English language quality, coherence, and readability of the manuscript before re-submission.

You may consider seeking professional editing assistance or consulting a native English-speaking colleague to refine the text. A well-polished manuscript will not only enhance the clarity of your research but also increase its chances of acceptance.

We appreciate your efforts and look forward to receiving an improved version of your work.

Editor-In-Chief

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear Editor, I have revised the article in accordance with the comments of the respected reviewers.

1. Question of the checklist: What is the study design?

We appreciate the reviewer’s comment. The study design is indeed a descriptive-analytical cross-sectional design, which is now clearly stated both in the abstract and the methods section.

2. Question of the checklist: What is the setting, including locations and relevant dates?

Thank you for the observation. We have specified the location and data collection period in the Methods section for greater clarity.

3. Question of the checklist: What are the eligibility criteria, and the sources and methods of selection of participants?

We appreciate the reviewer’s summary. Further clarification on the sampling strata and inclusion criteria has been added to the Methods section.

4. Question of the checklist: What are the variables and any methods used for assessment?

Thank you for noting this point. The methods section has been revised to include details of the validity and reliability assessment.

5. Question of the checklist: What are the main results with a measure of precision?

We appreciate the reviewer’s summary. Additional details regarding the precision of the results (mean ± SD) have been incorporated in the Results section

6. Question of the checklist: What are the limitations of the study?

We thank the reviewer for this valuable comment. The study limitations have now been explicitly mentioned in both the Discussion and Abstract sections.

7. Question of the checklist: What are the conclusions and their implications?

We appreciate the reviewer’s remark. The implications of the findings for system improvement and policymaking have been further elaborated in the conclusion

2 Revision 1

1 comment · 2 Nov 2025

Editor-in-Chief

MINOR REVISION 2 Nov 2025

minor revision

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Thank you for submitting your manuscript. We appreciate your contribution and the effort invested in addressing an important topic. Below is a structured critique based on the STROBE checklist for cross-sectional study
Title and Abstract
• Title:
The title does not include the year of the study, which is important in cross-sectional designs—especially for topics like technological literacy that can change rapidly. Please include the Gregorian year (e.g., “2024”) for clarity and relevance.

Study of computer and technology literacy of students at Abadan University of Medical Sciences in the year 2024

• Abstract:
The abstract lacks detail on the structure of the questionnaire and scoring system. Include a brief summary of the questionnaire’s sections and how scores were interpreted (e.g., Likert scale from 0 to 4).

The present study was a descriptive-analytical cross-sectional study conducted in the academic year 2024. The data collection tool was a researcher-made questionnaire whose validity and reliability have been confirmed. Test-retest reliability (with a 10-day interval) was performed to determine the reliability of the questionnaire. Thus, 30 students from different fields were asked to answer the questionnaire again after ten days, and finally the reliability of the questionnaire was confirmed using a correlation coefficient of 86 percent. The collected data were analyzed using descriptive statistics methods in SPSS 26 software.

Introduction
• Background:
Multiple overlapping definitions of computer literacy, IT, and digital tools are provided. These should be condensed into a single, strong definition early in the section to avoid redundancy and improve focus.

Computer literacy is commonly defined as basic computer knowledge, skills, and a positive attitude toward using and learning with computers and like reading and writing, has been considered a requirement for all students in the current century and commonly refers to the abilities required for all modern citizens to use computers to explore, create, and communicate effectively for everyday life, learning, and work. (1-3).
• Objectives:
The study's aim is presented, but it would benefit from a more explicit statement of objectives.
Methods

Therefore, this study was conducted with the aim of investigating the computer literacy and technology of students at the University of Medical Sciences in the year 2024.

• Study Design:
The study is correctly identified as “descriptive-analytical cross-sectional.” However, the use of the Iranian calendar (1403) may confuse international readers. Please specify the equivalent Gregorian year (e.g., 2024) or clarify the calendar used.

The present study is a cross-sectional descriptive-analytical study conducted in 2024
• Setting:
The academic setting is mentioned, but the exact data collection period should be clearly stated.

The research population was students studying at Abadan University of Medical Sciences (2023-2024).

• Eligibility Criteria:

Inclusion and exclusion criteria are generally appropriate but could be written in more formal terms. The number of academic disciplines and educational levels is not specified, and it is unclear why only a few selected fields of study were included in the research. The field of study and educational level should also be taken into consideration. The study groups have been categorized very broadly, despite the wide diversity of fields and academic levels within each faculty. The inclusion and exclusion criteria are not sufficiently justified or logical.

Thus, 30 students from different fields (Medicine (MD degree), nursing, operating room, information technology) Bachelor's degree(, were asked to answer the questionnaire again after ten days, and finally the reliability of the questionnaire was confirmed using a correlation coefficient of 86 percent. The reason for choosing these majors was that they were the only majors available at Ibadan University.

• Variables:

Key variables are identified, but definitions of digital and computer skills should be made more precise, especially when referring to subdomains like "new technology skills."

• Data Sources / Measurement:

The questionnaire sections are explained, but some descriptions are ambiguous. Mentioning that validity was assessed by four experts is good, but it would be stronger if you specified the type of validity evaluated (e.g., content validity, face validity). Also, specify if the same Likert scale was used throughout and how responses were interpreted.

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• Study Size:

The sample size (n=300) is given, but no sample size calculation is mentioned. Explain how this number was determined. $n = \frac{Nz^2pq}{Nd^2 + z^2pq}$

• Statistical Methods:
Statistical analysis is briefly described. You mentioned that the study is descriptive-analytical, but no analyses or statistical tests have been performed.

To give meaning to the data that were collected, descriptive statistical tools were employed, namely: Frequency Count, Percentage, Arithmetic Mean, Standard Deviation, Weighted Mean, One-Way ANOVA, Tukey's Test, Pearson's Product-Moment Coefficient of Correlation, and the Fisher's t-Test. In testing the hypotheses, the decision whether the null hypothesis was accepted or rejected, the following decision rule served as a guide: accept the null hypothesis if and when the computed value turned lesser than the critical or tabular value or the p-value turned greater than the α; on the other hand, reject the null hypothesis if and when the computed value turned equal or greater than the critical or tabular value or the p-value turned equal or lesser than the α. The hypotheses testing assumed that the level of significance would equal to α=0.05 in a two-tailed test. Available statistical software or packages were utilized for the accuracy and precision in the data processing.
Results
• Participants:
The total number of questionnaires distributed, excluded, and analyzed is mentioned. However, the distribution by academic year, field of study, and gender should be clearly detailed in a demographic table to assess representativeness.

This will be taken into account in future studies.

• Descriptive Data:
Add a table showing participant characteristics.
• Outcome Data and Main Results:
Percentages and mean scores are reported interchangeably—please use a consistent metric. Clarify the scoring scale and report any statistical significance for group comparisons (e.g., gender or faculty). Reporting confidence intervals or p-values would strengthen the analysis.
• Other Analyses:
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This will be taken into account in future studies.

Decision:

Major revision

3 Revision 2

1 comment · 2 Nov 2025

Editor-in-Chief

ACCEPT 2 Nov 2025

Accept