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Using Technology as a Tool for Student Learning Assessment: Roadmap to Creating a Culture of Mass Amateurization

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Abstract:

Mass amateurization has been regarded as the highest form of learning assessment. As the world goes digital learning assessment also has metamorphosed into something that prompts the utilization of various media and methods. This study is centered on the importance, usefulness, and challenges of technology used as a tool for student learning assessment. Further, the study also looked into practices employed by the teacher in using technology as a tool for student learning assessment in both formative assessment and summative. Findings reveal that the importance, usefulness, and challenges brought about by technology are considered indispensable by the student respondents in their learning assessment. Meanwhile, teachers sparingly use technology both in formative and summative assessments of student learning. As to the significant difference in technology importance, usefulness, and challenges, sex, course, and level are found to have no effect on the perception of the respondents.

Keywords:

Mass Amateurization, Technology, Earning Assessment, Roadmap

1. Introduction

WordPress defines mass amateurization as “the abilities that new forms of media have given to non-professionals, as well as the ways in which those non-professionals have used those abilities to solve problems, create and distribute content that competes with the solutions provided by larger, professional institutions.” [1] Simply put, mass amateurization refers to the activities that non-professionals engage in with the use of technology in order to appear professional.

From an educational perspective, mass amateurization is a concept considered to be the highest form of learning assessment. It is true that the standard student evaluation of learning has been revolutionized since the advent of technology. This is because the new generation has changed into digital learners. blogging, video-sharing, and picture-sharing websites allow anybody to post a story or shot without the

requirement for professional vetting by news or photo editors. Davis [2] claimed that blogs are genuine and authentic display of learning. Students can express themselves through blogs and they can invite feedback. Blogs enable people to engage in civil discourse and acknowledge the process. Teachers specifically are expected to adopt and adapt a new mindset of instruction and evaluation.

In China, educators are under pressure to deliver better outcomes for their learners to ensure that they are better equipped for the demands of the current world. The concept of mass amateurization first refers to the capabilities that new forms of media given to non-professionals and the ways in which those non-professionals have applied those capabilities to solve problems (e.g. create and distribute the content) that compete with the solutions offered by larger, professional institutions" [1].

2. Materials and Methods

The research used a quantitative method to obtain the data and purpose of the study. This is the process of gathering and interpreting numerical data. Further, the study utilized the descriptive method of research with questionnaires to describe, analyze and interpret the gathered information with the aid of technology.

The subjects of the present study are 100 students and 50 teachers of Jiangsu Vocational College of Electronics and Information. Thus, the data gathering also took place in the same institution. The subjects of the present study are 100 students and 50 teachers of Jiangsu Vocational College of Electronics and Information. Thus, the data gathering also took place in the same institution. The researcher conducted the study through convenience sampling due to some restrictions brought about by the pandemic and other pressing issues. The present study gathered data from the sample population through the distribution of a survey questionnaire to the identified respondents. The said instrument is a self-made questionnaire designed to elicit answers posted in the statement of the problem and an adapted questionnaire, Learner Use of Technology from the Commonwealth of Learning (2016). The self-made questionnaire for teachers was validated by three experts and pilot-tested for accuracy.

The researcher used different statistical tools in providing a systematic way of organizing the analyzed data to answer the question depicted in the study. Statistical Package for Social Science (SPSS) was used to analyze the data. SPSS is a Windows-based program that can be used to perform data entry and analysis to create tables and graphs. It can perform highly complex data manipulation and analysis with simple instructions.

The one-way analysis of variance (ANOVA) is used to determine whether there are any significant differences between the means of two or more independent (unrelated) groups (although you tend to only see it used when there is a minimum of three, rather than two groups). (One-way ANOVA in SPSS Statistics. This f test is used to determine if there is a significant difference on the level of student perception on technology usefulness, importance, and challenges when grouped according to their subject area.

3. Results and Discussion

The data presented here are all quantitative, needed to address the questions posed in the Statement of the Problem. These data were analyzed and interpreted comprehensively and supported by relevant and related studies.

3.1. Figures and Tables

Table 1. *Perception of the Respondents on the Use of technology in their Learning Assessment as to Importance.*

INDICATORS	MEAN	STD	INTERPRETATION
1. It will help me get better results in my subject	3.94	0.24	Strongly Agree
2. It will help me understand the subject materials more deeply	3.95	0.22	Strongly Agree
3. It makes completing work in my subjects more convenient	3.96	0.20	Strongly Agree
4. It motivates me to explore many topics I may not have seen before	3.10	0.36	Agree
5. It allows me to collaborate with others easily, both on and outside of the campus	3.92	0.27	Strongly Agree
6. It will improve my IT/information management skills in general	3.93	0.26	Strongly Agree
7. It will improve my career or employment prospects in the long term	3.00	0.00	Agree
8. I get more actively involved in courses that use technology	4.00	0.00	Strongly Agree
9. I am more likely to skip classes when materials from course lectures are available online	1.09	0.35	Disagree
10. When I entered college, I was adequately prepared to use the technology needed in my courses	1.95	0.33	Disagree
11. Technology makes me feel connected to what's going on at the college/ university	3.91	0.29	Strongly Agree
12. Technology makes me feel connected to other students	3.07	0.38	Agree
13. Technology makes me feel connected to teachers	3.89	0.45	Strongly Agree
14.I wish my teachers in the university would use and integrate more technology in their teaching	3.94	0.31	Strongly Agree
OVERALL	**3.40**	**0.09**	**Agree**

Legend: Strongly Agree (=3.51-4.0); Agree (=2.51-3.50); Disagree (=1.51-2.50); Strongly Disagree (=1.0-1.50)

Table 1 shows the perception of the respondents on the use of technology in their Learning Assessment as to Importance. As shown, indicator 8. "*I get more actively involved in courses that use technology* got a perfect mean of *4.00* which is interpreted as "strongly agree". This finding attests to the active interest of the students in technology and that interest includes learning. This is affirmed by Himmelsbach [4] stating that technology in the classroom is critical for increasing student engagement and empowering teachers to create innovative learning experiences both in and out of the classroom. Students agree with Kaila [5] stating that teachers serve as catalysts for introducing new technology into classrooms. They usually have some say over the tools that their students use. The rest of the indicators just affirm the importance of using technology in the assessment of students' learning. Students desire better learning assessments affirming the statement of Lynch [6] that online tools and assessments can be used to test and assess students of all ages.

Table 2. *Perception of the Respondents on the Use of technology in their Learning Assessment as to Challenges.*

INDICATORS	MEAN	STD	INTERPRETATION
1. Technology interferes with my ability to concentrate and think deeply about subjects I care about	2.50	0.54	Disagree
2. I am concerned that technological advances may increasingly invade my privacy	1.08	0.34	Disagree
3. I am concerned about cyber security (password protection and hacking	1.08	0.34	Disagree
4. In-class use of mobile devices is distracting to me	3.85	0.52	Strongly Agree
5. In-class use of mobile devices is distracting to my teacher	3.19	0.56	Agree
6. The use of tablets/laptops in class improves my engagement with the content and class	2.46	0.56	Disagree
7. Multitasking with my technology devices sometimes prevents me from concentrating on or doing the most important work	3.61	0.49	Strongly Agree
8. When it comes to social media (e.g. Facebook, Twitter, LinkedIn), I like to keep my academic life and social life separate	3.50	0.50	Agree
OVERALL	**2.66**	**0.16**	**Agree**

Legend: Strongly Agree (=3.51-4.0); Agree (=2.51-3.50); Disagree (=1.51-2.50); Strongly Disagree (=1.0-1.50)

Table 2 discloses the perception of the respondents on the use of technology in their Learning Assessment as to Challenges. As stipulated, indicator, 4 "*In-class use of mobile devices is distracting to me*." got the highest mean of 3.85 which is interpreted as "strongly agree". This is a good indication for this proves students' seriousness during class hours with the teacher. This is affirmed by the study by Gordon [3] that both students and teachers are constantly competing for attention in the classroom with smartphones and other devices. While the teacher is instructing, students are texting, surfing the web, and posting on social media. Students check their phones and other devices more than 11 times per day on average. This isn't just a quick glance to see if someone is attempting to contact them. Surveillance Self-Defense [8] warns that some invasive software can capture and keep a record of everything people do on a device (phone or laptop), even the things they type or delete. This can include everything they search for on the Internet, what they post on social media, and messages sent through chat applications.

Table 3. *Summary of Perception of the Respondents on the Use of technology in their Learning Assessment.*

INDICATORS	MEAN	STD	INTERPRETATION
1. Importance	3.40	0.09	Agree
2. Usefulness	3.61	0.10	Strongly Agree
3. Challenges	**2.66**	**0.16**	**Agree**

Legend: Strongly Agree (=3.51-4.0); Agree (=2.51-3.50); Disagree (=1.51-2.50); Strongly Disagree (=1.0-1.50)

Table 3 houses the summary of the perception of the respondents on the use of technology in their learning assessment. As shown, *Importance* got a mean of 3.40

which is interpreted as "agree", *Usefulness* got a mean of 3.61 which is interpreted as "strongly agree", and Challenges got a mean of 2.66 which is interpreted as "agree". The verbal interpretations simply affirm that the use of technology in assessing learning is indispensable in the 21st century when everything has become digital. When used effectively, technology enhances educational institutions, instructors, and students. It helps children by encouraging them to apply their critical thinking and reasoning abilities, to be more creative, and to learn how to use computers and other technologies. Students can learn how to display their own media productions both online and in front of their peers. Technology not only promotes student learning but also makes grading and assessing student work easier for teachers. Computer tools also make it simpler for educators to view student work when they are not in the office [6].

Table 4. *Significant on the Differences in the Perception of the Students in the Use of Technology as a Tool for Students Assessment as to Sex.*

Indicators	Classification	Mean	SD	F-Value	Sig Value	Decision On HO	Interpretation
1. Importance	Male	3.41	.08	0.59	0.45	Accepted	Not Significant
	Female	3.40	.10				
2. Usefulness	Male	2.68	.15	0.08	0.78	Accepted	Not Significant
	Female	2.64	.17				
3. Challenges	Male	3.61	.10	**0.37**	**0.54**	**Accepted**	**Not Significant**
	Female	3.62	.11				

@.05 Level of significance

Table 4 features the significant difference in the perception of the students in the use of technology as a tool for students' assessment as to Sex. The results reveal that all indicators got a sig value of more than 0.05 which means that the null hypotheses are accepted signifying that there are no significant differences in the perception of students in the use of technology (importance, usefulness, challenges) when they are grouped according to sex. This upholds that both males and females acknowledge the importance, usefulness, and challenges technologies bring to the teaching-learning process.

Table 5. *Significant on the Differences in the Perception of the Students in the Use of Technology as a Tool for Students Assessment as to Course.*

Indicators	Mean	SD	F-Value	Sig Value	Decision On HO	Interpretation
1. Importance	3.40	0.09	1.22	0.29	Accept	Not Significant
2. Usefulness	3.61	0.10	0.24	0.99	Accept	Not Significant
3. Challenges	**2.66**	**0.16**	**0.46**	**0.93**	**Accept**	**Not Significant**

@.05 Level of significance

Table 5 discloses the significant difference in the perception of the students in the use of technology as a tool for students assessment as to Course. The results reveal that all indicators got a sig value of more than 0.05 which means that the null hypotheses are accepted signifying that there are no significant differences in the perception of students in the use of technology (importance, usefulness, challenges) when they are grouped according to course. This finding affirms that in terms of the importance, usefulness, and challenges of technology, all courses acknowledge that technology is essential in their learning assessment. All courses agree that technology

has drastically altered the learning and assessment processes. Students have access to an abundance of online resources to supplement their education emphasizing the importance of technology in education (Team Leverage Edu, 2022) [7].

Table 6. *Significant on the Differences in the Perception of the Students in the Use of Technology as a Tool for Students Assessment as to Year Level*

Indicators	Mean	SD	F-Value	Sig Value	Decision On HO	Interpretation
1.Importance	1st Year	3.41	0.10	0.28	Accepted	Not Significant
	2nd Year	3.40	0.08			
2. Usefulness	1st Year	3.62	0.11	0.94	Accepted	Not Significant
	2nd Year	3.61	0.10			
3. Challenges	1st Year	2.68	0.15	**0.46**	**Accepted**	**Not Significant**
	2nd Year	2.64	0.18			

@.05 Level of significance

Table 6 presents the significant difference in the perception of the students in the use of technology as a tool for students' assessment as to Year Level. The results reveal that all indicators got a sig value of more than 0.05 which means that the null hypotheses are accepted signifying that there are no significant differences in the perception of students in the use of technology (importance, usefulness, challenges) when they are grouped according to year level. This finding affirms that in terms of the importance, usefulness, and challenges of technology, students regardless of year level acknowledge that technology is essential in their learning assessment. This is another affirmation of the usefulness, importance, and challenges that technology brings to learners. Experts assert that the adoption of technology at all level and pursuits of knowledge is based on the degree to which the use and importance is compatible with one's values, experiences, and needs. A systematic understanding of younger and adults' technology experiences can provide insights into the knowledge that these user groups may have when confronted with novel technologies.

4. Conclusions

a. The importance, usefulness, and challenges of using technology in students' learning assessment is much acknowledged in today's educational system.

b. Sex, course, and year level have no connection with the student respondents' perception of the usefulness, importance, and challenges of technology as a tool for student learning assessment.

c. Identified formative and summative assessment activities are sparingly employed by teachers for a variety of implementation

d. Sex has no connection with the practices employed by the teachers in using technology as a tool for students learning for both formative and summative assessment, while age and specialization have.

e. Mass amateurization still needs to be introduced to teachers to maximize its effect on student learning.

Based on the summary of findings drawn from the results of the survey and the conclusions, the researcher came up with the following recommendations: Teachers need to be exposed more to pedagogical trainings that highlight the importance and indispensability of mass amateurization as an assessment approach to maximize

student learning in the 21st century. Educational institutions must build more facilities that would promote and support the creative and inventive minds of students. Mass amateurization must be part of universities' curriculum revision and strategic plans so as to allot budget and facilities for such. Future researchers must delve into this topic wider and deeper in perspective so as to institutionalize this approach to learning assessment.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Author Contributions

CDW Collect the data of from both students' and teachers' correspondents and, and was a major contributor in writing the manuscript. Dr. Dapat helps to analyzed and interpreted the data. Both authors read and approved the final manuscript.

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