Manuscript Title: Using Real-Time Polling to Help Make Learning Stick

Manuscript: #13002

JoTLT Reviewer Recommendations and Revisions Table

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| Reviewer A | | |
| CRITERIA | SUGGESTION | REVISIONS |
| PURPOSE | I have made comments in the Word documents with regards to defining terms. There are a few terms with which I am, personally, not familiar (i.e. “learning transfer”). I inferred what this term meant, but not definition was provided in the abstract or the body of the paper.  There were also other terms which were introduced near the conclusion of the article which had previously never been mentioned. It would be helpful to the reader to see these terms defined in the introduction, so as not to be surprised by their appearance when the author is trying to conclude his/her argument. | Added earlier to abstract so the reader does not need to wait to understand definition for learning transfer |
| BACKGROUND | No suggestions |  |
| METHODOLOGY | I suggested in the comments on the Word document to see an example of this survey in an appendix. It is not clear from the context of the article if all questions that were asked were presented in the findings section of the article. | Thanks, we have implemented the suggestions. See the specific suggestions listed at the end of the table. |
| FINDINGS |  |  |
| CONCLUSION |  |  |
| PRESENTATION |  |  |
| SUBSTANCE | The tone of the article shifts greatly with the introduction of each section. I assume that this article has multiple authors and this is the reason for such shifts. However, it is a bit distracting.  Suggestions for further study seem interesting. The idea of having students engage each other with this technology during class presentation gives other option for the use of this technology in a classroom setting.  Problems the authors encountered do not address the financial requirement for this sort of technology. There are assumptions about a student’s technological savvy and/or possession of a tablet, smart phone or laptop. Understandably, this article explores the option for this sort of technology in the classroom. However, if a student cannot afford these kinds of technology, it cannot yield high results for all students. This may be a topic of further discussion as this sort of technology gains popularity on the university level. | I have removed the section where the tone changes.  We purposely chose to use Poll Everywhere to allow students to use their cell phones instead of buying clicker devices to save students money. I have included the comparison in the suggestions for further research. |
| IN SUMMARY | This article is appropriate subject matter for JoTLT.  I think that the introduction needs to be clearer and all terms need to be defined. Some terms are not defined until the literature review.  I have also suggested that the reader be able to see a copy of the survey used to gather qualitative results. It may be better to use more citations from the students using this technology. It is presented as a bit of an afterthought and much more focus in on the statistical analysis of the research questions. | The survey was too many pages to include, but we have included all questions pertaining to participation and engagement in the tables. |
| SUGGESTIONS IN WORD DOCUMENT | P#2: Give better definition of “Learning transfer” | Added earlier to abstract so the reader does not need to wait to understand definition for learning transfer |
|  | P#2: Switch “querying” to “interrogate” | Done |
|  | P #3: Insert comma.  Add footnote.  Delete comment about Poll Everywhere. | P #3: Insert comma. [Done]  Add footnote. [Done]  Delete comment about Poll Everywhere. [Deleted} |
|  | P#4: “Feel”; vocabulary choice- question is not clear | Reworded research questions. |
|  | P #4 Learning transfer definition should appear sooner | Added definition of learning transfer to abstract. |
|  | P #6 Change argued to argues | Changed argued to argues. |
|  | P #7: Add conjunction to clarify sentence | Added. |
|  | P #7: Delete simple | Removed. |
|  | P #10  Elaborate on how and why students are poor judges of understanding complex topics | Added. |
|  | P #10 Clarify or reword sentence for Zadina reference | Reworded and found new reference |
|  | P #11 Reformulate sentence for Doyle reference | Reworded |
|  | P #12 Define “Usability transfer” | Reworded. |
|  | P #12 Ask for a copy of the pencil and paper survey attached as appendix | The survey was too many pages to include, but we have included all questions pertaining to participation and engagement in the tables. |
|  | P #12 Reformulate sentence | Reworded and added new sentence. |
|  | P #12 Reviewer wants to know how well information fits into overall study about instructor level of experience | Removed that information. |
|  | P #13 Reformulate sentence for the first sentence in Research Q #2 | Reworded |
|  | P #14 Sentence not clear with survey results | Reworded. |
|  | P #16 Reformulate sentence in RQ #3 area | Reworded |
|  | P #17  Reformulate sentence | Reworded |
|  | P #17 Reformulate sentence in Discussion area for Bransford | Reworded |
|  | P #20 Reviewer noticed change in tone | Removed content about quality of education. Added new information about the significance of the study. |
|  | P #20  Reviewer wanted an example from this study | I removed the information from Arum and Roksa. |
|  | P #21 Change to comma | Removed semi-colon and made possessive. |
|  | P #21 Reformulate sentence as seems too casual | Reworded. |
|  | P #22  Why not use numbers instead of ninety-three percent | done |

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| Reviewer B | | |
| CRITERIA | SUGGESTION | REVISIONS |
| PURPOSE | This manuscript provides analysis and synthesis of information related to the use of real-time polling in the classroom. The authors set out to determine if the use of real - time polling will maximize student learning transfer by increasing students’ level of engagement and participation. The authors identified the study design as mixed methods but did not provide adequate justification for using this approach, This topic and research is certainly suitable for the readers of the Journal of Teaching and Learning with Technology (JoTLT). | We clarified how we gather quantitative data from likert-type questions on a survey and qualitative data were gathered from open-ended questions. |
| BACKGROUND | No suggestions |  |
| METHODOLOGY | The simple survey approach to analysis of this classroom intervention does not improve or provide any additional or significant information for educators. To enhance the current work and knowledge would require comparison of question types, comparison of classroom activities, or measurement of learning outcomes following the use of classroom response systems. | Additional analysis of the data is included including an analysis on the reliability and also an analysis on the intercorrelations of the variables. |
| FINDINGS | Several things would improve the mixed method design of this study including: a larger number of survey respondents calculated by statisticians, and / or comparison of outcomes between intervention groups such as test questions and/or classroom activities. Additional interventions to enhance the study might include: survey respondents a number of times and design interview questions to elicit anecdotal information or a deeper understanding of the use of this technology’s impact on learning transfer. The manuscript provides a basis for the development of a larger comparative study. | Great suggestions. We have added these suggestions to the “suggestions and recommendations for further research”. |
| CONCLUSION | Further development and definition of the concept of transfer of learning and the implications for use with classroom response systems would provide a substantial improvement to the manuscript. | Added more information about the concept of learning transfer in the conclusion |
| PRESENTATION |  |  |
| SUBSTANCE | The manuscript has sufficient detail for a JOTLT article. A proposal that compares the use of this technology with critical thinking questions or during a case study class activity would offer added value to this discussion. |  |
| IN SUMMARY | To enhance the current work and knowledge would require comparison of question types, comparison of classroom activities, or measurement of learning outcomes following the use of classroom response systems. | Included a quantitative intercorrelation of variables. |
| SUGGESTIONS IN WORD DOCUMENT | P#2: Give better definition of “Learning transfer” | Definition of learning transfer added sooner and more information included. |

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| Reviewer C | | |
| CRITERIA | SUGGESTION | REVISIONS |
| PURPOSE | The purpose is well-articulated. The research questions should be rewritten in order that they are not yes/no questions. The topic of the study is timely and interesting. | Research questions were rewritten so they were not yes/no questions |
| BACKGROUND | The literature review was well-done. Pay attention to verb tenses and to older articles that may be outdated. Also be careful not to be including personal perceptions in reporting findings. A theoretical framework was not clearly described. | Removed some personal perceptions |
| METHODOLOGY | The participant pool was appropriate, but the amount of qualitative data is limited and not worthy of considering this a mixed methods methodology. | Put more emphasis on the quantitative data. |
| FINDINGS | The findings of the quantitative data were presented well. The open-ended responses could have been further analyzed for main themes. | Put more emphasis on the quantitative data. |
| CONCLUSION | The Discussion section is weak in that there is little reference back to the literature review. The conclusion section precedes the limitations which seems out of place. | Included more information in the conclusion to link to the literature review. |
| PRESENTATION | The writing style is appropriate except for some informal terms such as ‘feel’ and ‘stick’. | Renamed title “Using Real-Time Polling to Enhance Learning Transfer”. |
| SUBSTANCE | The article presents some interesting findings in this field and provides useful suggestions for implementation of a polling activity in post-secondary settings. | Good. |
| IN SUMMARY | The last half of the paper could be rewritten to incorporate suggestions making it a strong contribution. | Added more information to add substance to the last half of the paper. |
| SUGGESTIONS IN WORD DOCUMENT | P #1 Use more formal term than “stick” | Changed title |
|  | P #2  Additions to clarify | Added |
|  | P #3 Add members | Added |
|  | P #3  Add reference | Added |
|  | P #3  Statement misplaced | Fixed |
|  | P #4 Place research questions after literature section | Moved research question |
|  | P #4  Reword research questions so they are not yes/no | Reworded research questions |
|  | P #4 change in verbiage | Fixed |
|  | P #7  Don’t use present tense for Mazur | Added newer reference for Mazur and also changed verbiage. |
|  | P#8  Mazur, use past tense | Added newer reference for Mazur and also changed verbiage. |
|  | P #12 Reviewer questions qualitative | Added clarification |
|  | P #13  Verbiage change suggestions | Changed. |
|  | P #18 Analysis of major themes or patterns | Added more quantitative data comparison to focus on the quantitative data. |
|  | P #18 Data analysis  Reviewer wants to know if this section is better suited for the results section |  |
|  | P #18 Reviewer suggests that the findings need to be better related back to the literature review | Added to link back to literature review. |
|  | P #20  Reviewer suggest addressing larger pedagogical issues than battery charges | Added |
|  | P #20  Reviewer suggest larger issues such as training (both instructor and students) | Added |
|  | P #21  Weak statement | Removed statement |
|  | P #22  Reviewer says that honesty is not the only limitation, also self-reporting is limited by lack of data of increased learning | Added more information for limitations |
|  | P #22  Reviewer would add this section to the limitations and end the paper with the conclusions section | Included. |