

LETTER OF INFORMATION / CONSENT – SURVEY

Generative Artificial Intelligence and Assessment: Design Principles for the Future of Teaching and Learning in Higher Education

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Purpose of the Study:

You are invited to take part in this study on the impact of generative artificial intelligence tools like ChatGPT on student assessment design in higher education. We are hoping to learn more about how instructors are addressing and responding to the widespread availability and use of generative AI tools through (re)designing student assessments in the courses they teach. We hope to identify and describe a broader set of assessment design principles based on what we learn to help instructors continue to design effective assessments in the future.

This research is being conducted as part of a postdoctoral fellowship under the co-supervision of Kim Dej and Erin Aspenlieder.

This is a line of research that we hope to continue in the future, and your data may be used for this project as well as future related studies.

The following information is specifically applicable to the survey portion of the study.

Procedures Involved in the Survey:

You will be asked to complete an online survey through the LimeSurvey platform that should take 10-15 minutes. This survey will require you to provide some information related to your position as an instructor, including your university or college affiliation, your academic discipline, your status of employment (tenured, tenure track, teaching stream, sessional, etc.), and how many years of teaching experience you have. You will also be required to upload an assessment that you intend to use (or have already used) during the 2023–24 academic year and include a brief description of how this assessment addresses generative AI tools like ChatGPT.

The survey includes three optional fields. You will be asked if you would like to be considered for a follow-up interview about your submission, and if you select “Yes”, you will be required to provide an email address for contacting you. Please note that giving consent to be contacted does not guarantee selection for a follow-up interview. You will also be given the option to have your submitted assessment included on a public website and

in a public data repository. If you give consent to have your assessment included on a public website and in a public data repository, you will then be asked whether you would like the assessment to be attributed publicly to you by name. If you select “Yes”, you will be required to provide your name for public attribution.

Potential Harms, Risks or Discomfort:

The risks involved in participating in the survey are minimal. You may feel some distress or discomfort as a result of the analysis performed and reported on the assessment you submit. Your emotional and intellectual investment in your work as an instructor is valid, and the researchers will take care at every step to analyze the content of your assessment consistently and according to a framework that focuses specifically on the elements that bring us closer to answering the research question of what principles or best practices should be followed when designing assessments with the availability and student use of generative AI in mind.

Due to this study's focus on higher education faculty and the work they do in and out of the classroom, it is also important to disclose the risk of workplace reprisal. There is no requirement to provide any personally identifying information, although in some cases, a combination of demographic characteristics may allow for someone to indirectly identify you (see the Confidentiality section below for details).

Finally, there is the possibility of data breach, which is minimized in this study through data security best practices (detailed below). Personal data are only collected in this study if you consent to being considered for a follow-up interview—in which case you will be required to provide an email address for contacting you—and/or if you request that the assessment you submit be attributed to you publicly by name on a website and/or in a data repository.

Potential Benefits:

We hope to use this research to inform future workshops and open educational resources for instructors in higher education. If you would like to be informed about such workshops and resources, you will be asked to provide an email address for contacting you at a later date.

As a participant, you will also be given access to the website where the public repository of student assessments will be hosted as the research team develops it. The research team intends to begin building the website as soon as we begin receiving assessment submissions and to launch the website officially in early to mid 2024.

More broadly, this research will enrich teaching and learning scholarship in higher education and result in published findings that could help inform policy decisions around the use of generative AI in universities and colleges. The assessment design principles that emerge from the research could guide university and college instructors in altering existing assessments or creating new ones for a future in which generative AI use is normalized as another digital tool (similar to the normalization of search engines, for instance). The public data repository of assessments submitted by participants who consent to inclusion also represents one of the major benefits of the study to the broader academic community as well as other researchers involved in the scholarship of teaching and learning. All of the above benefits could potentially apply to you as an instructor in higher education.

Incentive/Payment or Reimbursement:

There is no incentive being offered for your participation in this study.

Confidentiality:

You are participating in this study confidentially. I will not use your name or any information that would allow you to be directly identified except in two cases:

1. You consent to a follow-up interview or you consent to being contacted about future workshops and other open educational resources, providing your email address for contact purposes.

2. You consent to have your assessment submission added to a public website and/or a public data repository and you request that the assessment be attributed to you by name and/or institutional affiliation. In this case, anyone with internet access would be able to identify your association with the study, your submitted assessment, and your name and/or institutional affiliation.

If you consent to one or both of the above, your data will be de-identified of personal information during the data analysis and reporting phase. This means that the research team will not be able to identify you by email address or name when analyzing the other non-identifiable data that you submitted (including demographic information and your submitted assessment). The directly personally identifiable data removed from the de-identified data will be securely stored in a location separate from the de-identified data, and this location will only be accessible to the PI and the co-supervisors. Similarly, the linking file will be securely stored to allow us to link the de-identified data to your personally identifiable data later, in order to contact you for follow-up after the initial data analysis phase and/or properly attribute your assessment submission when adding it to the public website and/or data repository.

There is the potential that you could be indirectly identified in our reporting of the collected demographic data, which include institutional affiliation, discipline, years of teaching experience, and employment status. While one of these characteristics is likely not enough to identify a participant, depending on the organization, size, and uniqueness of your institution, a combination of two or more characteristics may allow for someone to identify you. Please take this into consideration when deciding whether you would like to participate in the study or not.

Once the study is complete, an archive of the demographic data, without identifying information, will be maintained for three years, as it may be requested by scholars for verification. These non-personally identifying data may also be uploaded to one or more public data repositories. If you do not give consent for your assessment to be included on a public website or in a public data repository, the assessment will be stored securely and accessible to me for five years, as this form of data may also be useful for future research. All other assessments will be made publicly available on a website and in one more public data repositories (for example, McMaster University Dataverse or ICPSR).

Participation and Withdrawal:

Your participation in all parts of this study is voluntary.

During the survey, you can stop and exit the browser window at any time, even after giving consent, and your data will not be saved, effectively withdrawing you from the study. Once you complete the survey, your responses are recorded as data for the study. At this point, you may still withdraw your data from the study for up to 7 days if (1) you have provided an email address and/or (2) you have both consented to having your submitted assessment included on a public website or in a public data repository AND provided a name that you would like us to use to give you credit for the assessment. If you meet either or both of these criteria, you can email me directly (taylob36@mcmaster.ca), specify the email address or name you provided on the survey, and request that all your data be withdrawn from the study. The record containing your responses will then be deleted and excluded from the study. After 7 days, you will be unable to withdraw from the study, as data processing and analysis will have begun. Furthermore, if you do not meet either of the criteria listed above (i.e., you do not provide an email address or name on the survey), we will be unable to withdraw your data from the study once you submit the survey due to its anonymity. This is because in this case, no personally identifiable information would have been collected, so we have no way of identifying which responses belong to you.

If you decide to withdraw from the study, there will be no consequences to you.

Information about the Study Results

I expect to have this study completed by approximately May 2024. A summary of the results will be posted at <https://genaiteach.ca>, along with the assessment submissions from any participants who gave permission to have their assessments included on a public website. Results may also be published in appropriate scholarly journals, and efforts will be made to publicize the results of the study across communications channels with which you may be familiar as an instructor at a Canadian institution of higher education.

Questions about the Study: If you have questions or need more information about the study itself, please contact me at:

Ben Lee Taylor taylob36@mcmaster.ca
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This study has been reviewed by the McMaster Research Ethics Board and received ethics clearance under **project #6636**. If you have concerns or questions about your rights as a participant or about the way the study is conducted, please contact:

McMaster Research Ethics Office
Telephone: (905) 525-9140 ext. 23142
E-mail: mreb@mcmaster.ca
