Engaging Students in Classroom Learning and Research: A Case Study in a Survey Course

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Keywords: Student engagement, Artificial Intelligence, combining teaching and research, practical exposure

This presentation addresses the dual challenge of fostering student engagement in the classroom and research settings, presenting a case study from a graduate course on survey research methods. The course is designed to offer students experience in the research process, as they participate in designing, distributing and analyzing an online survey sent to all undergraduate students at the University of Iceland. In addition to contributing to the research process, students take responsibility for both generating survey questions and for promoting the survey. The survey data then form the basis for the final research report that is based on the students' own analysis of the collected data.

To ensure relevance and topical interest, the course instructors selected three themes for the students to explore, one of which centered on Artificial Intelligence use among the undergraduate student population. The results regarding this highly relevant and timely theme led the instructors to initiate the development of a scientific article, in collaboration with two students from the course. Although this project is currently a pilot, its potential to scale to larger cohorts suggests broader applicability, potentially increasing student engagement and fostering a deeper commitment to academic research. This approach particularly appeals to students who are interested in exceeding the baseline requirment of the course and pursuing academic excellence. While the instructors provide leadership on the writing process, the students continue to contribute, extending their learning experience beyond the completion of the course. This approach provides students with hands-on experience in the complete research lifecycle, from survey design to data analysis and ultimately, scholarly publication.

The presentation will consist of three parts. In the first part, the instructors will discuss the course design development over time, focusing on pedagogical adjustments made to enhance student engagement and deepen their understanding of survey research methods. The alterations aim to foster a dynamic learning environment where students gain practical experiences and learn about the challenges of survey research. Students are further introduced to computer survey programs and are required to use a statistical software program to analyse the survey results.

The second part of the presentation will introduce a student persepctive, with students reflecting on their experiences in the course, collaborative work with peers and insights into their role in the research process. This account will highlight the impact of active participation on student motivation and learning outcomes, emphasizing how this experience promotes ownership and accountability. Challenges regarding course participation and peer collaboration will also be discussed.

In the third and final part, we will present findings from the survey, and discuss how we went about sending out the survey. The Student Registration Office initially helped distributing the survey to 7535 student emailadresses, with five-hundred twenty-seven (n=527) students actually opening the survey. The survey was made available in both Icelandic and English, and took on average 10 minutes to complete. For incentive purposes students were able to register for a lottery at the end of the survey. Although it is impossible to entirely eliminate the risk of systematic non-response bias, no clear indicators of such bias have been identified in our study. The sample is considered representative of the gender distribution within the University and also representative for the University's five Schools. In the presentation we will provide a descriptive overview over the extent of AI usage for different types of tasks and assignments. Furthermore, students' pattern of AI usage are analysed according to their school affiliation, type of study enrollment, social background, gender and age. The data indicate that approximately 60% of students have used a chatbot such as CHATGPT, primarily to define concepts and access information. Only a minority, about 10%, report using AI to generate content for assignments, revealing a cautious approach among students to integrating AI into their academic work. Interestingly only about 50% of the students were aware of the UI's official guidelines on AI use, despite these being available on the university's website. Most learned about appropriate AI use through conversations with teachers and fellow students rather than from formal resources. These findings underscore the need for an ongoing dialogue about AI's role in higher education. The rapid adoption of generative AI demands that students be educated not only on AI's applications but also on ethical considerations to ensure responsible use. The integration of research on this topic in the course helps students see the relevance of their academic work, while simultaneously contributing to a knowledge that can shape future university policies on AI.

Altogether, this presentation outlines a research-oriented pedagogy that integrates real-world survey work into graduate education, provides insights from student reflections, and highlights survey findings on AI usage in academia. This multi-faceted approach serves as a model for promoting academic engagement, equipping students with practical skills, enhancing their motivation and ultimately fostering a dedication to scholarly work.