Exploring Instagram To Promote Student Engagement in an Online Didactic Environment†

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The COVID-19 pandemic has forced higher-education institutions to shift to nearly 100% online delivery of didactic coursework nationally. Besides the stress and isolation that many students experience simply due to the physical distancing requirements imposed by the crisis, students new to learning in an online environment may feel further isolated and disengaged from the course content. Consequently, we explored the use of an existing online social networking tool, Instagram, to enhance students' engagement with online course material. In this study, students enrolled in both undergraduate and graduate online science courses were invited to participate. Course instructors posted materials related to the topics covered in the course weekly sessions, including links to news reports, cartoons, and short quizzes. At the conclusion of each course, a questionnaire focusing on the students' experience was distributed to all participants. Results from the survey showed that the weekly Instagram posts allowed students to feel more engaged with the course content and connected with the course instructors and classmates. However, some students reported that the posts were not helpful or that they did not feel comfortable using social networking tools for education purposes due to privacy concerns. In this article, we provide tips for how to improve the effectiveness of using social networking tools to augment didactic online courses.

INTRODUCTION

Creating an engaging online learning environment for students has become even more relevant owing to the almost complete shift to online education due to the COVID-19 pandemic. Student engagement is widely recognized as critical for high-quality learning outcomes and retention (1, 2). A sense of belonging among students, especially in an online environment which may feel isolating, can play an important role in enhancing student engagement and performance (3, 4).

The popularity and use of social media has increased irrespective of age, race, gender, income, and education (https://www.pewresearch.org/internet/fact-sheet/social-media/), and social media is increasingly being utilized for educational purposes (5, 6). Seaman and Tinti-Kane surveyed nearly 2,000 college faculty and found that 80% report using social media in their courses, and the vast majority felt there was value in social media for teaching. Douglas et al. specifically focused on the use of Instagram in anatomy teaching and found 80 institutional and individual Instagram accounts with anatomy-related posts (7). However, similar to a literature review by Arnbjörnsson, they noted a lack of empirical data illustrating the impact on learning (8). Paton et al. also noted that despite limited research in this area, social media's use may enhance the learning experience by allowing for greater connectivity among students and faculty (9). With the usage and popularity of Instagram, a photo- and video-sharing social networking platform, quadrupling since 2012 (https://www.pewresearch.org/internet/fact-sheet/social-media/), our study explored the use of Instagram to enhance student engagement and maintain their sense of community in an online didactic environment.

PROCEDURE

This study was approved as exempt by the GWU IRB board (#180778). Customized private Instagram accounts were created for online laboratory science courses following guidelines suggested by the institution's Office of Communications and Marketing. To maintain student privacy, separate accounts were created for five different courses (undergraduate course: Molecular Diagnostics; graduate courses:

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†Supplemental materials available at http://asmscience.org/jmbe

Genetics, Microbial Pathogenesis, Advanced Immunology & Serology, and Advanced Molecular Diagnostics) and managed by the course instructors. Students enrolled in these courses were recruited via an e-mail announcement (Appendix 1) sent through the Learning Management System (LMS). Since the Instagram course pages were private and unique to each course, students were asked to request access to follow their course Instagram account, which was then approved by the instructors. Once a week throughout the semester, instructors posted materials relevant to either the lecture or laboratory course content (Appendix 2) in the Instagram account, such as:

- Images of microorganisms, various disease symptoms, assays, lab tests, and how to interpret them
- Short videos (less than 60 seconds) explaining concepts
- Memes, fun facts, and cartoons to engage the fun aspects of science
- Research article summaries covering key concepts being taught in class
- Current popular news and media related to laboratory science
- Short, ungraded quizzes on weekly content
- Inspirational quotes about science

Students were encouraged to post answers to the quizzes, as well as share their thoughts about the posts. Instructors answered student questions and often posted an encouraging emoji for each student post. At the end of the semester, participants responded to a survey that included questions regarding demographics and perceptions on the use of Instagram in the course (Appendix 3).

CONCLUSION

This study demonstrates that student morale and engagement in online learning was enhanced by using Instagram. Our findings show that 95% of the students (N = 22), ranging in age from 20 to 54 years, had used social networking sites in the past, and 82% reported using them for educational purposes, suggesting that students are independently using social media to support their learning. Students in our study who did not use social media for education attributed it to privacy issues and distraction and preferred to keep their academic and social lives separate, a sentiment echoed by other educators (10–12).

Seventy-three percent of the participants in this study wanted to use social media during online learning, 45% agreed that the Instagram posts boosted their morale while learning, and 27% found the posts engaging, consistent with other studies demonstrating the benefits of social networks (13, 14). Some students commented that their lack of engagement was due to not being active on Instagram and not always seeing the posts. Students who engaged with the content had positive comments: "I am less active on Instagram, but when I am on, seeing course-related content sparks thoughts about the topic," and "When I saw the National Geographic – Your Genes post, I immediately went and bought the copy of the article to read in my spare time," which demonstrates that building connection is an effective way to supplement online didactic teaching. It is encouraging to note that our participants did not have much time for leisure, as they were often full-time students working more than 20 hours/week, yet indicated their interest in using social media as an added tool for learning.

Some tips gleaned from this study to enhance the use of Instagram as a platform in online education:

- Ensure appropriate institution guidelines on social media usage are followed. A communications or similar office is typically responsible for monitoring institutional social media accounts and is a great resource.
- Plan and implement a frequent posting schedule as participants in the study recommended frequent posts to stay engaged. We posted once a week.
- Ensure posts are relevant to the content being covered in the course to allow students to relate and connect with the content.
- Check the feed regularly and respond encouragingly. We used the star emoji to acknowledge students' posts.
- Remind students through the LMS or by commenting on a post to respond to instructor and classmates' posts to generate further discussions.
- Ensure that quizzes and assignments, if used, are not complex or time-consuming. We used figures or short questions in our posts that students could solve easily and quickly.
- Encourage students to submit current articles or research, but instructors should approve before posting.
- We did not use hashtags, Instagram Stories, or Instagram Live due to our courses being private. However, these options are worth exploring to expand the audience base and connect with students in real time, while also increasing discoverability of the Instagram account if these align with your goals.

Our study suggests that Instagram can assist in forming connections between students and their peers as well as with their instructors, foster informal learning, and enhance student engagement in an online setting, which are critical educational components, especially due to the isolation students are experiencing because of the COVID-19 pandemic.

SUPPLEMENTAL MATERIALS

Appendix 1: Student recruitment e-mail

ACKNOWLEDGMENTS

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