Blended Learning: Realizing its Potential in the Field of Histotechnology

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INTRODUCTION

The growth of the Internet has greatly impacted the manner in which education is delivered. A shift in how education is delivered is applicable in the laboratory setting. Histotechnology is a laboratory science that centers on the preparation of slides for microscopic examination. One important aspect of this field is the proper education and training of histology technicians. This education and training is essential for developing highly skilled histotechnicians who are able to perform tasks such as assembling patient tissue, recognizing and identifying patient slides, and maintaining quality standards in the laboratory setting. The acquisition of these skills is important to the preparation of slides for microscopic examination. One key challenge in the education of histotechnicians is providing the necessary resources to enable students to develop their technical skills. This is especially important in the laboratory setting, where students must gain hands-on experience with the practical application of technical skills. An alternative to these traditional methods is a blended learning approach that combines asynchronous web-based content with faculty presence in the online environment. This approach allows students to access course material at their own pace and engage with faculty and peers in a collaborative setting. This approach also emphasizes the development of technical skills through the use of interactive tools and simulation.

ONLINE INSTRUCTIONAL MATERIALS AND METHODS

Blended learning models have become more prevalent in educational institutions, as they allow for a more flexible and personalized learning experience. In this study, an online histology course was developed that combined asynchronous web-based content with faculty presence in the online environment. The course materials were delivered through Blackboard, an online learning management system. Students were able to access course content, participate in online discussions, and complete assignments through the Blackboard platform. The course also incorporated interactive tools, such as a virtual microscope simulator, to help bring the laboratory closer to reality. These tools allowed students to practice their technical skills in a simulated environment and receive immediate feedback on their performance.

FACE-TO-FACE MATERIALS AND METHODS

An important aspect of the histology laboratory course was the provision of hands-on experience in the laboratory setting. This was achieved through the use of skill set rotations, where students were given the opportunity to practice their technical skills. The skill set rotations were designed to develop a variety of technical skills, such as assembling patient tissue, identifying patient slides, and maintaining quality standards in the laboratory setting. The skill set rotations also allowed students to receive feedback from faculty members, who were able to provide guidance and support as needed. The skill set rotations were evaluated using rubrics to assess the quality of the student's performance.

STUDENT ASSESSMENT - A BLEND OF ONLINE AND FACE-TO-FACE ASSESSMENT

Student assessment in the histology laboratory course was designed to evaluate the quality of the students' technical skills. This was accomplished through the use of online knowledge quizzes and a comprehensive final exam. The quizzes were designed to assess the students' understanding of the course material, while the final exam evaluated their ability to apply this knowledge in the laboratory setting. The final exam was proctored by faculty members in the program didactic classroom, ensuring a high level of academic integrity. The exam was delivered using the Respondus LockDown Browser, a tool that restricts access to any online resources during the exam. The exam was graded within 48 hours of completion, and any attempts to access online resources during or after the exam were strictly prohibited.

DISCUSSION/CONCLUSION

Preliminary indications are that the blended learning model is well received by students. The online instructional materials and methods were found to be engaging and interactive, while the face-to-face materials and methods provided hands-on experience in the laboratory setting. This approach resulted in improvements in student participation and engagement, as well as an increase in the quality of the students' technical skills. The blended learning model also allowed for a more flexible and personalized learning experience, as students were able to access course content at their own pace and engage with faculty and peers in a collaborative setting. The online knowledge quizzes and comprehensive final exam were found to be effective in evaluating the quality of the students' technical skills. The final exam was delivered using the Respondus LockDown Browser, a tool that ensures a high level of academic integrity.

REFERENCES


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