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### **The effectiveness of blended learning environments for the delivery of respiratory care education**

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It has been reported that the major weakness of online learning environments is the lack of consistent, efficient communication with the course instructor. In an attempt to provide the learner with the “best of both worlds,” some educators have opted to integrate additional course materials via internet classrooms to enhance learning while still maintaining the face-to-face interaction between instructor and learner. The researchers hypothesized that there is not a difference in academic outcomes between students who complete a course in a traditional environment and those who complete the course in a blended environment nor is there a difference in student satisfaction between the two methods of course delivery. Methods: Data collection included a retrospective review of the demographic and course information. Quantitative data analysis of the data was performed in SPSS® using the Mann-Whitney test and the Spearman rho correlation. Qualitative data analysis was performed via open coding of subjective student comments. Results: The data obtained by retrospective review of demographics and course outcomes was analyzed to determine significant differences. None of the variables showed a statistically significant difference ( $p=0.05$ ). Further testing revealed an expected positive relationship between pre-existing GPA and the final examination grade as well as the final examination grade and the course grade ( $p=0.05$ ). No other positive relationships were noted in course outcomes, student satisfaction or subjective comments. Conclusions: It can be assumed by the data presented that there is no difference in academic outcomes when comparing the traditional classroom setting to the blended classroom setting. These results favor the continuing practice of blended learning environments as a viable option for course delivery in health care education, specifically respiratory care.