Title: Kinesiology Mobile Application Purchase

Curriculum Affected: Health & Physical Education (HPE), Health Promotion & Fitness Management (HPFM), and Athletic Training (AT).

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Objectives of the Proposal

This proposal seeks to implement a Kinesiology Mobile Application, a collaborative effort between Rowan University and B2C Fitness Integrated Education System. The project

Description of the Specific Innovation

Although there are several mobile applications currently available for personal fitness and access to college course materials (e.g., MyFitnessPal, Blackboard Mobile Learn, etc.), none of these are tailored to meet the needs of students learning to apply concepts related to human movement science. There is a need to devote effort to the development of supplemental course materials for individuals studying to be health & physical educators, personal trainers, physical therapists, etc. The proposed project would provide a tailored application (App) that increases the opportunities for students in the Health & Exercise Science department to learn, understand, and apply kinesiological concepts. The App will also provide insight to department faculty and B2C Fitness on the efficacy of mobile technology in teaching/relaying information to individuals studying to be human movement science professionals. Furthermore the increased access to health and exercise science products will allow for a greater number of individuals in the community to be educated through Rowan University and B2C Fitness on concepts, thereby improving the knowledge and practice of professionals who may already be working in the field. Using the Kinesiology mobile app during classroom sessions will also enhance student understanding of functional anatomy information and corresponding exercise prescription.

The pilot testing of the Kinesiology mobile application will occur over the 2013-2014 academic year. Approximately 100 students taking Kinesiology will be recruited to participate in the pilot test. Through the installation of electronic markers in the mobile application, usage of the application among this population will be determined. Data gathered from process, impact, and outcome evaluation measures (i.e., surveys and participant interviews) will be used to determine the ease of usage and efficacy of the Mobile App in improving learning of course material.

Features of the Kinesiology Mobile Application

The focus and key features of the Kinesiology Mobile Application are images, icons, videos, research articles, and test banks. The application includes specific information relating to the core subsystems of the human body. Specifically, users will be able to select a content topic and receive scientific articles, images, videos, and real-life applications/scenarios related to that topic. There will also be a link to a test bank that will include questions for students to gauge their knowledge and comprehension of the material. Students will receive feedback on their results and given suggestions to improve their understanding of the content. The application will track user progression in course content through test completion and display motivational images (e.g., stars, smiles, etc.) when they make correct choices. This will serve as a reward system whereby users can “earn” more stars and move to different content as they complete each section of test questions.

Pilot Testing the Kinesiology Mobile Application

The target population of this project will include individuals taking Kinesiology in the Health & Exercise Science Department. A sample of approximately 100 subjects will be invited to participate in the Mobile App project. This study seeks to answer the following major research question: *Does the implementation of a Kinesiology Mobile App help to improve student knowledge and comprehension of Human Movement Science concepts?* A major reason for conducting a pilot study is to determine initial data for the primary outcome measure, in order to perform a sample size calculation for a larger trial (Ross-McGill et al., 2000; Stevinson & Ernst, 2000). As a result, there is no clear methodological guidance as to what constitutes or justifies an adequate sample size for the pilot study itself (Lancaster, Dodd, & Williamson, 2002). Therefore, we chose a convenience sample of 100 subjects from the Kinesiology courses currently being offered at Rowan University.

Mobile App Training Sessions

Students will be taught how to use the App during a classroom lecture period. Baseline data will be collected through personal interviews and survey distribution to determine participant knowledge and usage of mobile applications. Next, each element of the Kinesiology Mobile App will be thoroughly

variables so that one can be sure that the program is being implemented as it was originally planned and