

Scholarly Article Critique

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Case & Diagnosis: Case 7 – Neck & Upper Back Pain

Summary and Critique of Scholarly Articles.

Title of Article: Take-A-Break Notification

Add PDF link of article to website.

<http://ieeexplore.ieee.org.proxy1.lib.uwo.ca/stamp/stamp.jsp?tp=&arnumber=7066665>

1. Article title information.

Julius, N., & Mustapha, E. E. (2014). Take-A-break notification: An ergonomic application. Paper presented at the 390-395.
doi:10.1109/ICIMU.2014.7066665

2. Describe how this article is pertinent for your topic. Does it provide proof of a clinical concept? Does it explain a procedure that is needed for your topic? What are the implications for your topic?

This article is pertinent to the topic because it looks at an application that was designed to help remind people to take breaks. This is a paper that was presented at the International Conference on Information Technology and Multimedia (ICIMU) in November 2014. This article is focusing on the Take-A-Break Notification software that runs on windows operating system. This app was designed for office workers who have the highest tendency on prolonged computer screens. Take-A-Break Notification was designed to reduce Computer Vision Syndrome (CVS). The application itself will dim the computer, disabling the mouse and keyboard functions, which will force the employees to take a 5-minute break after 2 hours of working in front of the computer screen. Thus, encouraging office workers to apply ergonomic practices. This paper included a literature review on the following areas: general problems related to sitting in front of a computer, maximum hours to sit in front of computer screen, computer vision syndrome (CVS), and existing software. Henceforth, the researchers provide proof of this being an important area to look at in a clinical setting due to the effects from computer vision syndrome (CVS) and repetitive strain injury (RSI).

This article applies to the case study and topic because it is linked to break application reminders for the client. Even though this paper is on a software for windows computers and the client has an apple computer, it provides useful information on the importance of a break application and the process that goes into creating an app. Also, since the client has several

work stations, she may have to work on a windows computer and this application software may be beneficial at those times. However, the key use of this article for this client is additional support on the importance and use of application reminders to help long term computer users to take breaks to reduce other issues like Computer Vision Syndrome (CVS).

3. Write a précis of the article, including:
 - a. Purpose of the study
 - i. The purpose of this study is to prevent computer users from sitting in front of a computer screen for a long period of time. This study focuses on developing an application that allows users to take a 5-minute break for every 2 hours. The scope of this study is on office workers who work for long durations in front of a computer screen.
 - b. Research design of the study
 - i. Two types of methodology were described as being used including development and research methodology.
 - ii. Rapid application development (RAD) methodology was used for the project development phase.
 - c. Data collection and analysis
 - i. System architecture and quick design by sketching the mock Graphical User Interface (GUI) was the first steps in the project. Then software development, which includes coding, demonstrating and refining using Visual Studio 2012. Finally, the testing phase is done by demonstrating the beta version to 10 real users to obtain the usability rating and feedback.
 - d. Outcomes of the study/Conclusions
 - i. More detailed research and findings were needed in relation to coding efficiency or reduction and best interactive user interfaces. Also, more research is needed on how to implement this type of software in office users as an alternative way to enforce ergonomics practices in the workplace due to the lack of recognition and awareness on CVS. The final prototype of Take-A-Break Notification has undergone: unit testing and usability testing. The software was accepted by users and received grade 'A' software. Beta testing results showed interest from lecturers who support the software and would implement it in their office. Based on the criteria considered, it is believed that the project will achieve its main objective and help to reduce the possibility of getting CVS.

- e. Did the author explain why the work was important to, in relation to the work of other researchers?
 - i. The authors explained the importance of the work to help with clinical problems including: Computer Vision Syndrome (CVS), Repetitive Strain Injury (RSI) and Work Related Musculoskeletal Disorders (WMSDs). The authors linked their research and software development to the implementation of ergonomics practices that have been put in place by companies to help guide their employees in practicing ergonomic practices.
- f. If you found issues with the article, explain what your concerns are and how that will affect your reliance in the article as a source of good evidence for your topic.
 - i. I had few issues with this paper. Since it was not an academic paper, but instead a paper from an Information Technology and Multimedia conference, the layout of the paper was less organized. This means that certain methodologies used in their research were not explained clearly. Also, some of the practices and design stages of software development were briefly covered. However, this article is still relevant to the topic of memory based software programs to help people who are constantly using computers for long periods of time. This lack of information only inhibits the full reliability of the technology design, which may have been explained at the conference or in a further paper.