

## **Asynchronous web technology in online counselling system**

### **ABSTRACT**

**Objectives:** To identify the users' requirements of the Online Counselling System, to develop an AJAX-based Online Counselling System based on the analysed requirements and to measure its effectiveness.

**Methods / Statistical Analysis:** This research work comprises a series of studies. Firstly, the questionnaire survey was conducted to understand the users' requirements. The target respondents were students at a university in Malaysia and 170 participated in this study. Secondly, the development of an AJAX-based Online Counselling System based on the analysis users' requirements and lastly, the evaluation of the developed Online Counselling System through the usability testing, conducted to see its effectiveness.

**Findings:** Finding a research work that specifically measuring an AJAX-based application in terms of users' satisfaction is lacking and could not be located. Therefore, this research work was conducted to measure an AJAX-based application system. In this study, we have used the usability testing as the user-centered technique to measure the effectiveness of the AJAX-based Online Counselling System. The Online Counselling System is an interactive and responsive application act as an alternative platform to the face-to-face counselling approach. There are four components covered in usability testing, namely, learnability, efficiency, memorability and satisfaction. The result shows that the Online Counselling System has met the user requirements, measured based on these four criteria. This could only be achieved through the use of AJAX approach development that provides a minimal page reloading and very suitable for an interactive web-based application system. This research work finding provides the evidence that the AJAX architecture principle offers a great promise for developers to develop a more interactive and responsive application without compromising on performance of the application.

**Keyword:** Asynchronous web technology; Counselling; Online counselling system; AJAX; XMLBROWSER