

ABSTRACT

Training new mechanics on motorcycle engine problem diagnosis and troubleshooting through the conventional on-the-job training OJT approach requires a great effort. This approach has many limitations and is unable to handle the current organizational demands. A supplement to OJT is required to address this issue. This research has developed a computer based motorcycle engine diagnosis and troubleshooting (MEDT) trainer. Usability of the trainer was evaluated through heuristic and user evaluations. Three minor problems had been identified by experts through heuristic evaluation. The results of user evaluation indicate that all the users agreed that computer based MEDT trainer had good usability in terms of *System Usefulness*, *Information Quality* and *Interface Quality* and all the measures were highly rated. When comparing between the novice and expert users, no significant difference was found ($p > 0.05$) for all the measures. From the results, it is concluded that the user can easily learn to use the computer based MEDT trainer since it provides interactive, fast and systematic learning curve through its multi-sensory training delivery which integrates 3D real-time visualization, video, animation, audio, image and text. With computer based MEDT trainer, users are able to control their own learning path and enable them to learn and train at their own pace, anytime and anywhere.