Abstract

The main aim of this action research is to improve the student’s technical problem-solving skill to fix and manage different technical problems in higher education Institutes. One of the main reasons for the deterioration of higher education institutions in providing the labour market with qualified professional cadres is keeping academic curricula in the classical frameworks and not develop the curricula to coincide with the technical progress. Solving technical problems has become an urgent need of the majority of the commercial companies, due to the expanded use of computer technologies and networks, for example, a single technical problem that disrupted the work for an hour may cost the businesses hundreds of millions of pounds. The implementation of this action research done in two different stages, the first and second stage to implement during the study and the third stage will perform in the future. The first stage strategy to achieve the Social Cognitive Theory (SCT), The second stage to implement the Problem Based Learning (PBL) using Guided practice strategies. Simple questioners were given to the learners, before and after the formative or summative assignments or the class problems solving activities. The results of questionnaires were analyzed in detail to determine the actual
impact of different strategies applied to enhance problem-solving skills. In this research, we have been able to reach satisfactory results to improve the level of students in technical problem-solving skills this required significant efforts and times using PBL, Guided practice tutorials to help the learners mastering the problem-solving techniques. Because of the time limitation of this action research, the third stage of using PBL with application strategy to reduce the amount of the efforts and times will be implemented in future research.

References

Complementary and Alternative Medicine, 2019.


Index Terms

Computer Science
Information Sciences

Keywords

Social Cognitive Theory, Problem Based Learning, learning strategies.