

Primary Teachers' Awareness on STEM Integration

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STEM is a curriculum approach based on the idea of educating students in four specific disciplines; Science, Technology, Engineering and Mathematics in an interdisciplinary approach. The purpose of this study was to find out primary teachers' awareness on integration of STEM through the subject Environment Related Activities (ERA) in the primary curriculum. A survey design was used in this study and a questionnaire was administered to 100 primary teachers selected from stratified random sampling. In addition, focus group interviews were held with 20 primary teachers in order to get a better understanding of teacher awareness. Data from questionnaires were analyzed quantitatively with the use of MS Excel while incorporating the views taken from interviews. Analysis of questionnaire revealed that only 19% of primary teachers have heard of STEM concept through the programs conducted by the Teacher Centers. The responses obtained from teachers further indicated that 92% of them were familiar with the integration concept which is considered the key characteristics of STEM. This was further evident from the examples of subject integration provided at the focus group interviews. However, their examples were limited to integration of science and mathematics with other subjects like first language and aesthetic subjects rather than Engineering and Technology. Furthermore 75% they were in the view that STEM can be integrated into primary curriculum and they indicated the themes in which STEM should be integrated. More than 90% of the teachers believed that introduction of STEM into primary curriculum helps students face the challenges in future life. Majority of teachers responded that teachers need training in order to integrate STEM into primary curriculum. In conclusion, although teachers are familiar with the concept of integration, it is not exactly what is expected from STEM integration into ERA in the primary curriculum.

Keywords: STEM, Integration, ERA, Primary curriculum