A Novel Interactive Pedagogical Exercise of Teaching Textiles Engineering Courses to Undergraduate Students using Open Educational Resources

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ABSTRACT

This study aims at analysing how learning of students can be improved by adopting an interactive pedagogical method using Open Education Resources (OER). For the past decade, a more "open approach" to learning is gaining popularity, such learning outside the conventional classroom not only encourages students to learn more with self-interest but also updates their knowledge with the latest developments in different subject topics. In the present work, an interactive approach was explored in line with the methods to achieve greater and easier learning of textile engineering subject matters by students. 36 students of two subjects – "Technical textiles" and "Woven fabric technology" were informed about the OER along with teaching basic subject content For each subject, students were divided into different groups with two assignments for each group and for each group, a discussion forum was created in MS Teams platform, where students could post and view each other's posts. Students were asked to search the related OER for one assignment, and each student was needed to post the quality OER/web link they found. In addition, students were asked to comment on other OER posted by their classmates. Finally, students of different groups submitted individual group assignments and presented two presentations on the given topics – one with OER and other without it. It was found from the subjective evaluation of presentations that students fared better in assignments made with the help of OER. It was found from their perception review that they enjoyed the learning better through OER.

Keywords: Open Educational Resources (OER), interactive learning tools, term assignment, textiles education, student engagement