Integrating Online Assignments Checking in Introductory Courses

David Pundak
Kinneret College, Israel
dpundak@kinneret.ac.il

Miri Shacham
ORT Braude Engineering College, Israel
mshacham@netvision.net.il

Orit Herscovitz
Technion Science University, Israel
orither@tx.technion.ac.il

Abstract

Web technology offers lecturers the option of checking students’ assignments online. Several systems have evolved to deliver personal assignments to each student in a multi-participant course. These systems provide students with immediate feedback, allowing them to correct erroneous answers and referring them to relevant literary sources that can assist them with their assignments. These strategies influence the lecturers’ teaching and their ability to respond to students’ difficulties in real-time. The study examines student attitudes concerning the integration of the WebAssign (WA) Online Assignment Checker (OAC) in the teaching of academic courses. An on-line questionnaire investigated attitudes of 75 engineering students studying introductory academic courses assisted by OAC. The questionnaire included the following six dimensions: involvement and interest, understanding the studied material, lecturers’ consideration of students’ difficulties, importance of the course, tutorial methods and dishonest assignment submission. Significant findings emerged for attitudes in four dimensions. The students think that OAC lead lecturers to relate to their difficulties, contribute to their success in the course, and do not encourage cheating such as copying. No preference was found between submitting homework in hardcopy or online.

Keywords: Online assignment Checker - OAC, Student Attitudes, Understanding, Involvement, dishonest learner behavior
Biographies

Dr. David Pundak - Senior Lecturer in Physics and faculty in Kinneret College and Head of E-Learning Unit in ORT Braude College (OBC). For the past twenty years he has been involved in research and development in science and physics education. Having set the goal to advance science education. Dr. Pundak founded the center for science education - "Blossoms of Science" at the Kinneret College. The center integrated research done by scientists with enquiry projects conducted by junior-high and high schools students. At OBC Dr. Pundak founded and heads the E-Learning Unit which focuses on the development of courses learned through the Internet. The developed web sites enable students and instructors to take advantage of web technology and to enrich the social activities and the knowledge resources of the courses. At the same time, he studies the influence of Web technology on instruction and learning. Instructors' Attitudes toward Active Learning.

Dr. Miri Shacham works as a lecturer and researcher in the Teaching Department and in the Centre for Teaching and Learning of Ort Braude Academic College in Israel. She also works as a researcher in the field of Stress and Trauma in the Community Stress Prevention Centre of Tel Hai College in Israel. She is working in The Israeli Ministry of Education as an Organizational Counselor for school principals. She was a member of an English-Israeli Team that developed a special international PhD Program in Anglia Ruskin University in the UK. Her major researches and publications are in these areas: Innovation in Science and Technology Education, Learning and Teaching in Higher Education, the influence of Web technology on instruction and learning, Doctoral Education, Trauma and Resilience in war times.

Dr. Orit Herscovitz is a Senior Researcher and Lecturer of graduate and undergraduate courses and advisor of graduate students in the Department of Education in Technology and Science, at the Technion, Israel Institute of Technology. She is also the director of the Israeli National Center for "Science for All" teachers. Her activities during the last 15 years at the Technion include developing and assessing case-based science curricula and promoting professional development of pre- and in-service science and technology teachers. In these two research fields she has been promoting the enhancement of constructivist learning environments via advanced educational technologies. Her publications include articles and book chapters in science education and educational technology. She has also written four learning units for high school students as first author together with colleagues.