Wiki as a Tool of Choice for Students’ Team Assignments

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ABSTRACT

This paper presents the results of the empirical research based on the experiences in using wiki as means of introducing collaborative activities in two different courses at the same time – an introductory eBusiness course for the first-year students, as well as the course in software engineering for students at the last year of Computer Science studies. Comparing and contrasting the results accomplished by these two groups of students offer interesting insights in how wiki as a tool can contribute both to the efficiency of the assignment solving process and the transparency and fairness of teamwork evaluation. Students’ opinions and feelings emerging during the work on wiki assignments and in respect to the evaluation of their joint work were also investigated. Finally, attention was paid also to the effect of the applied team formation mechanisms on the final results of team projects.

Keywords: Collaborative Learning, Evaluation, Student Assignments, Teamwork, Wiki

INTRODUCTION

Collaboration among people can be highly supported via usage of information and communication technology. Through collaboration, a shared and improved meaning of a product, process, event, or some other object is created. As a consequence, current trends of eLearning suggest collaboration as the heart and central point of all learner-centred learning management systems (Palloff & Pratt, 2003). Additionally, through collaboration, the development of critical thinking skills, co-creation of knowledge, meaning, and reflection learning, are promoted.

Contemporary eLearning is usually presented via online courses. Consequently, learning management systems (LMS) are the
prevailing technology employed today for delivery and organization of online courses. Usually, they force an educator to organize the learning content in a course-like form. It can then, as such, be divided into modules and lessons, enriched with quizzes, tests, assignments, forums, discussions, etc. Very often, those systems are also integrated into institutions’ student information systems.

However, it has been noted (Downes, 2005), that the Web is shifting from being a medium, in which information was transmitted and consumed, into being a platform, in which content is created, shared, repurposed, and passed along. This is realised through the development of techniques of Web 2.0, and subsequently eLearning 2.0, dealing with facilitating and promoting active participation through open applications and services (Ivanova & Popova, 2011). Thus eLearning 2.0 is strongly targeting at collaborative nature of learning, focusing on content syndication, its reuse, adaptation, and personalization (Drášil & Pitner, 2006).

More and more course materials are produced and altered by students, in collaboration and sometimes with the help of lecturers, who take the role of moderators, mentors, and mediators. One of the frequently used tools for such purposes is wiki. Wikis have been deployed as means to promote deeper learning, enhance collaboration skills and facilitate the knowledge discovery of students (Parker & Chao, 2007). However, while it is clear that wikis possess a number of features that can facilitate collaboration, it does not necessarily follow that they dictate or impose any meaningful level of collaboration between users. Indeed the limited empirical research that has been carried out to date focusing on the degree to which wikis support collaboration has been equivocal (Judd, Kennedy, & Cropper, 2010).

This paper presents the results of the empirical research based on the first experiences in using wikis as means of introducing collaborative activities in two completely different courses at the same time. We have selected an introductory eBusiness course for the first-year students of Computer Science at the Department of Mathematics and Informatics, Faculty of Science in Novi Sad, as well as the advanced course in software engineering for the seniors (students at the last year of their studies) of the same profile. Collaborative work was bravely introduced to first-year students, together with the chosen Web 2.0 tool. This was, however, convenient since we had a lot of students, still unfamiliar with their colleagues and the course of studies, but very accustomed to modern Web tools. The situation was slightly different in the “Software Engineering” course, since the students were more comfortable with their course of studies and their colleagues, thus this new challenge, solving team assignments using wikis, was less stressful for them.

Our goal was, in both cases, not only to give the students, grouped in appropriate teams of 4-5 collaborators, a possibility to learn how to use wikis, but also to help them in gaining soft skills and valuable experience through team effort.

The rest of the paper is organized as follows. In the following section we present the state of the art in this research direction. Afterwards we describe our case and motivation to introduce wiki as a tool for solving team assignments in each of the chosen courses. Next, some numerical results gathered while conducting both test courses are displayed, one of them through two consecutive years with the same wiki assignments, the other in one school year but containing two wiki assignments. The achievements students accomplished while practicing teamwork, as well as the impact of the usage of wiki as a tool on their final results and grades are presented in detail. Finally, conclusions and plans for further research are presented in the last section.

TEAMWORK IN COMPUTER SCIENCE COURSES

While the introduction of teamwork asks for reorganization of courses, more work on assignment control and tracking who-did-what
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