

Feedback just in time: group-ePortfolios for PBL

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What problems were addressed? Problem-based learning (PBL) is one of the key learner-centred teaching strategies in medical curricula. However, students of our curriculum often report challenges with regards to feedback they receive from PBL tutors on assignments they complete during their self-study time. Furthermore, tutors are looking for an instructional design to optimise the transition from self-study time to PBL tutorials. We address the following research questions. (i) Can we ensure that all students are prepared for PBL tutorials? (ii) Can an innovative feedback process during self-study time contribute to an improved structuring of PBL tutorials?

What was tried? After implementing a PBL cycle with a 1-week self-study period, we introduced a blended-learning scenario that fits into the PBL process by using Just-in-Time Teaching (JiTT).¹ The novel concept was piloted over 7 weeks with one PBL group (11 students) and two tutors.

In JiTT students complete assignments and upload them to the web.¹ In our case these were tasks students defined during PBL tutorials. Tutors

in return look at the assignments 'just-in-time' before tutorials to focus on students' needs in an upcoming tutorial. For our JiTT scenario we used a group portfolio within the ePortfolio platform *mahara* (<https://mahara.org/>). We built pages in the group portfolio for each problem, where students could upload their findings and discuss them in terms of peer feedback during their self-studies. They were also able to ask questions in the group portfolio that could then be answered by tutors and peers during tutorials.

As well as JiTT, tutors had a look at the group portfolio shortly before the tutorial and left feedback on group findings. At the end of the pilot we conducted a focus group analysis with 10 of the students who tested the method.

What lessons were learned? We were able to successfully integrate the group portfolio into our PBL-cycle. Students and tutors strongly accepted the tool and used it until the end of the term.

Students felt that JiTT enriched the PBL process. They liked the idea of asking questions in the group portfolio that could be answered or discussed during tutorials. All students were prepared for tutorials during the use of the group portfolio. Therefore tutors were able to start the tutorial with questions and problems, which optimised the transition between self-study time and PBL sessions.

Focus group results indicated that feedback by tutors was too vague. For students an adequate feedback by tutors in PBL would include (i) weighting of students' findings, (ii) recommendations for upcoming assignments, (iii) additional information and (iv) feedback on individual findings. It is questionable whether students will find feedback satisfying if no additional information is provided by the tutor to sustain the philosophy of self-directed learning. Students did not use the option of peer feedback.

Finally, JiTT worked effectively in two out of six PBL cases that were tried within our group-portfolio pilot. Further efforts are needed to adapt the feedback guidelines and process to students' needs for PBL tutorials.

REFERENCE

- 1 Novak GM, Patterson ET, Gavrinn AD, Christian W *Just-In-Time Teaching: Blending Active Learning with Web Technology*. Upper Saddle River: Prentice-Hall 1999.

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