Assessment and Feedback in Problem-based Learning activities

1. Title of case study: Assessment and Feedback in Problem-based Learning activities

2. Contact details
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3. Context
   Programme: MPharm
   Level: Part 2
   Number of students: 100

4. What is the rationale behind the practice? (Aims / objectives)
   The aim is to provide the students with adequate feedback and assessment in a problem-based learning (PBL) environment. PBL is one of our major teaching methods in Therapeutics, a core module for Part 2, 3 and 4 students in Pharmacy. I teach on the first course of Therapeutics (Part 2 students) and every teaching unit is based on a case study for which the students have to create a care plan using a PBL approach. Therefore, the objectives are to design a course, which has the ability:
   • to assess the ability of the group to solve a problem
   • to assess the team work and the contribution of the individual
   • to give the groups a generic feedback
   • to give the groups an individual feedback.

5. What does the staff member do? (Maximum of 350 words)
   Within Therapeutics 1 the course I am teaching consists of 5 weekly sessions, each lasting 2-3h. Each session follows a similar scheme: The students work in their groups of 6 on a case study, which they received the week beforehand, creating a treatment (care) plan. The students are using a PBL approach, as they are acquiring knowledge
and are learning while they are confronted with the problem. The actual “lecture” part is then based around the case study and summarizes the students’ findings. Within these sessions feedback is crucial in order to help the students develop their problem-based learning skills. Therefore, 3 members of staff - lecturer, teacher practitioner (= teaching pharmacist, who can give the students and insight into the day to day handling of these cases) and a PhD student - are present in order to provide feedback and to encourage the students while they are working in their groups. At the end of the PBL session the students receive general feedback in form of a master care plan for this case study. The students have to mark each other’s care plans, which helps them to engage with the care plan and to critically think about alternative answers. After each session the care plans are additionally marked by the lecturer in order to give each group an individual feedback.

The assessment of these care plans is important to the students as it often works as an additional motivation. The care plans are finally assessed by the lecturer, and minor mistakes are especially penalized as we try to train the students to pay attention to detail as this is important for their later profession. Additionally, the students can mark each other’s input into the group work via peer assessment. This peer assessment counts for 10% of their PBL mark and is used for scaling the marks the students receive for their care plans (80%). The final 10% of the PBL mark is attributed to attendance. The peer assessment helps the students to weight the contributions of their colleagues, and actually within most groups these marks did reflect the effort of each member quite well.

6. Does the practice work?
(Please list problems encountered / overcome; (un)expected benefits / disadvantages; whether or not the practice is sustainable)

The practice works well. It is well received by the students as they like to learn in an active way. The students are happy with the general feedback for each case study they receive and as they mark each others care plans they interact with each other very well. The additional individual feedback the students are receiving encourages them to put more effort into detail. Students get penalized for minor mistakes as it is important to get used to precise answers (care plans) as they will be responsible for their patients lives in their professional career.

The group assessment is a tricky part, as there are always students who contribute more than others. The students are working in groups of 6, which is slightly too big for an ideal group. Even the students agree that groups of 4 would be better. Unfortunately, this is not feasible for us, as we have 100 students and with smaller groups the effort of marking all the care plans would become too much. The students have the chance to “judge” each others contributions within the peer assessment and that seems to satisfy the students.

7. Advice for staff
(E.g. how to prepare; what to do differently)

In order to run a similar PBL assessment and feedback session it is very important to be well organized. It is necessary to prepare model answers, lecture manuscripts and evaluation sheets well in advance. It is also important to plan your teaching very carefully around the case studies and the assessment, not the other way around. Despite having to prepare quite a bit, it is an interesting and rewarding way of teaching and assessing students and especially as the feedback can become quite
interactive. One of the major advantages is that the students really take ownership of their learning and the lecturer should not be afraid if the students are involved in the feedback sessions.

8. Relevant resources (E.g. pdf of the case study resource. Please submit pdfs only if possible)

See attached