DEVELOPING STUDENT-CENTERED ASSESSMENT FOR A POSTGRADUATE COURSE DESIGNED FOR BASIC EDUCATION TEACHERS

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ABSTRACT: *The Constructive Alignment theory, by Biggs, relies on students' self-construction of meaning by relevant learning activities. To accomplish this goal, teachers have to align four essential elements: curriculum, Intended Learning Outcomes (ILOs), methodologies and assessment. In this paper, we describe an implementation of a constructively aligned postgraduate course on active learning methodologies for basic education teachers. The syllabus was comprised of four well-established active learning methods: Predict-Observe-Explain (POE), Peer Instruction (PI), Jigsaw and Six Thinking Hats (STH). Students had to plan, discuss in pairs, perform a real active lesson with their own pupils and observe and provide peer feedback to their colleague. Assessment was carried out as the following forms: self-reflection, active lesson plan, peer assessment and self-assessment and one summative form: active lesson report. Each assessment evaluated distinct skills related to both specifics ILOs and learning activities. The results reveal that aligned assessment fostered learning, encouraged self and peer reflection, improved teacher feedback and promoted an effective collaboration among students.*

KEYWORDS: *Student-centered Assessment. Constructive alignment. Competence and skills evaluation. Active learning.*

Introduction

In this paper, we discuss student-centered assessment as part of Constructive Alignment (Biggs 1996) of Curriculum on a post-graduate course on active learning methodologies designed for basic education teachers. Cizec (1997) defines assessment as: "(1) The planned process of gathering and synthesizing information relevant to the purposes of (a) discovering and documenting student's' strengths and weaknesses, (b) planning and enhancing instruction, or (c) evaluating progress and making decisions about students; (2) the process, instrument or method used to gather the information." (p. 10).

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Contemporary learning theories place the student in the center of learning. This means that students take responsibility for planning, monitoring and assessing their own learning. In this paper, we focus on the last part of that student-centered process: assessment. According to Wiggins (1992) the term *assessment* derives from the Latin *assidere*, meaning "to sit with", and "It is something we do *with* and *for* a student, not *to* them." The term in itself creates an image of a teacher sitting beside the student guiding and trying to understand what is happening and why (EARL, 2003). In student-centered assessment the student is not only involved in the assessment discussion with the teacher but does the self-assessment and peer-assessment without the teacher.

Based on this definition of assessment we will be looking at 'assessment for learning', 'assessment as learning' and 'assessment of learning'. 'Assessment of learning' is basically what we understand with 'summative assessment', i.e., trying to find evidence in students' performance to determine to what extent they have reached the preset learning outcomes and to grade them. This is traditionally done by the teacher. In the learning process, it is like a picture that captures students' knowledge, skills and attitudes at that particular moment in time. 'Assessment for learning' is both diagnostic and formative, it happens all the time during the learning process and its purpose is to help students to learn. Feedback of their progress is given by the teacher but also by fellow students. Ideally, feedback is not one-way but takes the form of a discussion where the learner is involved in assessing their learning process. Peer assessment can be encouraging if it includes scaffolding and support between the observer and the observed in a discussion, where the observed can raise questions of their performance and receive feedback. While 'feedback' helps learners to identify the gaps in their learning, 'feedforward' supports them to overcome learning obstacles and to find a way to an improved performance. In addition, giving and receiving feedback increases the understanding of the learning content.

Finally, 'assessment as learning' covers all aspects of assessment, diagnostic, formative and summative as the authors understand it, and according to Andrade and Du (2007): "[…] is a process of formative assessment during which students reflect on and evaluate the quality of their work and their learning, judge the degree to which they reflect explicitly stated goals or criteria, identify strengths and weaknesses in their work, and revise accordingly." It is students' own reflective practice during the learning process. Students learn to understand how they learn best, can change their studying methods and plan ahead.

Assessment on a postgraduate teacher training course

Our target public was a small class (10 people) of Master and Doctorate students, most of them basic education teachers, who had never heard about active learning methods. The syllabus was comprised of four well-established active learning methods: Predict-Observe-Explain (POE), by White and Gunstone (WHITE; GUNSTONE, 1992), Peer Instruction (PI), by Mazur (MAZUR, 1997), Jigsaw by Aronson (ARONSON; PATNOE, 1997) and Six Thinking Hats (STH), by De Bono (DE BONO, 1985). The course structure followed a constructive alignment: establishing a relevant curriculum, defining the intended learning outcomes (ILOs), choosing teaching/learning activities likely to lead to the ILOs and assessing students' actual learning outcomes to see how well they matched what was intended (BIGGS, 2003).

There were 11 face-to-face classes and 6 types of teaching/learning activities were carried out. (i) An initial lecture to present the course and to perform the self-reflection form and two standard lessons to talk about the content topics. (ii) Four active metalectures: this neologism is an analogy of the expression "metalanguage". An active metalecture is a lecture that employs an active learning methodology to explain the methodology itself. (iii) One teacher feedback lecture to discuss the students' active lesson plans with the teacher/author and debate them with their peers. (iv) A peer feedback lecture to discuss and enhance students' active lesson plans with their peer, which is the colleague that will observe the real active lesson. (v) The main activity was not a lecture, but a real active lesson that students performed with their own pupils by using one of four active methodologies addressed in the course. Besides, students had to observe and give written feedback about the active lesson of their colleague. (vi) Students' presentations about their experiences in the real active lessons, highlighting strengths, shortcomings, remarks, results, insights, real pictures and feelings. In the end, students completed a self-assessment form.

A rule of thumb to plan assessment aligned to learning outcomes is to set up these aspects simultaneously. In other words, as the learning outcomes for each topic are defined, their respective assessment should be presented as a mirror of those goals (Biggs, 2003). In this course, we had four self/peer assessment forms and one summative, self-assessment report. Moreover, each part of assessment intends to evaluate distinct skills, which in turn are consistent with different learning outcomes. Thus, it is advisable to construct different types of assessment that are better fitted with the ILOs that will be developed in those specific situations.

The four assessment forms, in the order in which they were applied to students, were: self-reflection, active lesson plan, peer assessment and self-assessment. The summative assessment, assessment of learning, was the active lesson report that was released in the middle of course to be returned in the last class. Each assessment had different purposes related to both specifics ILOs and learning activities, as explained below. Apart from the final report, none of the other assessment forms were graded.

Self-reflection (*assessment as learning):* First the students reflected on their current teaching methods, technological resources and assessments tools. The ILOs associated were: students (i) can analyze their teaching practices, level of satisfaction and prior experience, (ii) can set goals regarding what kind of teacher they wished to become, and (iii) can compare their teaching routine with their expectations.

Active lesson plan (*assessment for learning)*: Students had three weeks from the fifth lecture to think, plan, write, discuss in pairs and with the teacher their plan for teaching the first active lesson to their respective pupils, by using one methodology addressed in the course. The ILOs were: students (i) can collaborate, (ii) can give enriching feedback to each other and (iii) know how to design an active lesson.

Self-assessment (*assessment as learning)*: At the end of the course, students reflected on how they managed to achieve their own learning objectives. The ILOs were: students (i) can assess the quality of their work and their learning and (ii) can identify strengths and weaknesses in their work, and revise accordingly.

Peer assessment (*assessment for learning)*: This was a confidential form, because students did not return it to the teacher/author. It was important that students felt free and comfortable to talk frankly to their peers without fear of being judged or assessed by whomever. In general, some significant learning can be promoted when someone needs to observe and give feedback to their colleague, for both participants. During active lessons it is very difficult for the teacher in training to capture all aspects of both student behavior and positive or negatives effects of the active methodology. Therefore, another teacher observing the active lesson can be crucial to realize and note valuable information missed by the teacher in charge. This second opinion was a precious source to the teacher in training to base his/her own self-assessment report on. The ILOs were: students (i) gain confidence in using active learning methods, (ii) can realize gaps in their understanding and (iii) understand their learning process.

<u>Active lesson report</u> (*assessment as learning and of learning):* This was the only summative assessment. This report played the role of an oriented canvas where students could paint a clear, coherent and reliable picture of their active lessons. The questions seek to guide teachers to pay attention and reflect on different aspects such as development of students' skills, strengths and shortcomings in methodology, students' reactions and behaviors and learning evidence. In their report, students had to select the most representative materials and activities to demonstrate their observations and conclusions. This choice gave them power over their report and increased their self-assessment skills. Its ILOs were: students (i) can apply a student-centered approach in their teaching, (ii) can identify, describe and compare real learning situations and (iii) have developed an analytical reasoning and synthesis capability.

Results

Out of the ten students, two did not accomplish to observe a colleague's active lesson and do peer assessment. In general, Brazilian teachers are not used to being assessed by their peers, so it can be a permanent challenge. However, most of them engaged in pairs to discuss, elaborate, perform and assess their active lessons and completed the forms and reports accordingly. In their real active lessons, the STH was chosen by 4 students, Jigsaw by 4 students, POE by 2 students and PI by 1 student. An interesting fact was that some pairs completed both the peer assessment forms and the active lesson report together because in this way they could enhance their learning and build an effective collaborative work.

Conclusions

The student-centered assessment used in this course drew on the Constructive Alignment theory by Biggs. It proved to be an auspicious instrument to foster learning, encourage self-reflection/assessment, improve teacher feedback and promote an effective collaboration among students. We would like to suggest that those who performed all the activities and completed all the forms and the report achieved a quality leap in their pedagogical practices and improved their peer cooperation and engagement. Most of them stated that they intended to incorporate these active methods into their teaching and showed a great enthusiasm about their own results, both with learning gains and attitude change among their young students.

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