

An investigation into the contribution of a formative assessment task as preparation for summative assessment.

**Karen Clarke,
Jenny French,
Martin Needham.**
School of Education

Background

The Early Childhood Studies (ECS) degree, located within the School of Education, was revalidated in 2003. Part of the revalidation process was to incorporate a written formative assessment in each module. This change was introduced because it was felt that:

Assessment that is primarily summative in its function (for example when only a number or grade is given) gives students very little information, other than frequently confirming their own prejudices about themselves. (Brown et al., (1996, p.9)

Conversely:

Formative assessment is where the purpose is to get an estimate of achievement which is used to help in the learning process... Formative assessment (is) where the student receives feedback to help him/her improve the next performance'. (Brown and Knight 1994, p. 15, cited in Light and Cox, 2001, p. 170).

Formative assessment would therefore provide students written and or verbal feedback that would help improve their writing and critical thinking, two of the main objectives for the level 2 core module, EY2000 "How young children learn". Furthermore, according to Black et al (2003, p.2), formative assessment as part of teaching and learning strategies, would have the following positive effects:

*Improved grades on summative assignments.
Clearer understanding of the value of their learning.
Increased job satisfaction as staff come to enjoy their work more because it resonates with their professional values.*

There is an abundance of literature about assessment, the types, the purposes and so on but this paper and research focuses on *formative* assessment and the feedback relating to the particular assignment. Within higher education, the purpose of assessment is to develop higher intellectual skills that reflect 'commitment and enthusiasm and deeper values of the discipline' (Light and Cox, 2001, p.170). Evidence from school-based research (Black et al., 2003) suggests that formative assessment is not a strong classroom practice but there should be more flexibility in higher education, both within the curriculum and teaching and learning strategies, to incorporate more formative assessment into modules. This should start with:

Building students' knowledge of how and why assessment takes the form it does, raising awareness of ongoing as well as final processes, and revealing how critical thinking about assessment is an integral part of the learning process... (Smyth, 2004, pp. 369-378)

The research

When formative assessments were first introduced during the academic year of 2003-04, many students were disinclined to do them. Staff heard students say that 'as they're not graded – what's the point?' However, in the academic year 2004-05, there was a significant increase in the numbers of students completing the formative assessments across all the ECS modules; some modules had a 100% return. There were two reasons for choosing the level 2 core module EY2000 to evaluate the

effect of formative assessment on summative assessment. First, all level 2 students studying this discipline would have to take and pass this module. Second, all students would be familiar with the concept of formative assessment, even if they had not undertaken them in the first year.

The assessments

EY2000, is a year long module with a formative assessment towards the end of semester 1 and one final summative assessment completed in semester 2. The gap of one semester between assessments meant that neither staff nor students would feel over burdened with assessment pressures and that meaningful feedback could be given to students early enough for it to have an impact on their summative assessment.

The formative assignment required students to submit an outline of key theories in relation to how young children learn. Students were asked for no more than 500 words of annotation but for this annotation to be in a prose format against the outline of the theories they thought that they might encounter in relation to their summative assignment. This was submitted in January with feedback given in small groups during tutorial sessions in February.

The summative assignment required students to carry out an observation of a small group of children engaged in a play activity and to analyse the extent to which theories of children's learning through play are supported by what they observe and the extent to which the play they observe offers the children a helpful context for learning to take place. This assignment was submitted in May with feedback in June.

Data collection

Two groups of four students were interviewed in February 2005 after they had received feedback on their formative assignment, using interview schedule A (appendix 1). One group of four students was interviewed in June 2005 after they had received feedback on their summative assignments.

Focus groups were felt to be an appropriate technique to use in order to gather student views on the formative assessments because they offered students a chance to consider their own views in relation to that of a small group of peers as well as encouraging the students to feel more comfortable in interview and more confident to contribute. Each group had representatives from across the range of educational attainment. However, there were three main weaknesses in the composition of our focus groups. First, all students in the focus groups had volunteered to participate in the research. Second, all students in the focus group had submitted formative assessments. Third, all students were interviewed by their own module tutors. This relationship may have moderated their responses. Given the above it is likely that student responses would have been biased in favour of formative assessment.

In an attempt to provide a more balanced picture of formative assessment, the views of students from a wider group were sought using an electronic questionnaire sent out through Wolverhampton On-line Learning Framework (WOLF). This had a very low response rate (3 responses to a message sent to over 100 students) possibly due to the timing of this questionnaire (i.e. immediately following the return of assignments at the end of semester two). Readers who are interested in this questionnaire or on-line questionnaires in general can obtain further information from the authors.

The third source of data used to triangulate the findings from the focus group was provided by the grades awarded for the summative assignment. It was anticipated that students who submitted formative assessment would gain higher grades than those who did not. By comparing the grades of submitting and non-submitting groups it was expected that a picture of the effect of formative assessment on summative assessment would emerge. The findings from the analyses of these data are presented below.

Findings

Quantative analysis

A sample of 71 students from two iterations of EY2000 were compared to see how those submitting formative assignments compared to those who did not submit formative work. The average grade for the non-formative submitting group was 6.1 whilst the average grade for the formative submitting group was 11.2. Only one student in the non-submitting group achieved a grade as high as B11 on the grade point scale, whereas 36 submitting students achieved B11 and above (figure 1). Clearly it cannot be claimed that the formative assignment was the only factor contributing to the difference in grades between the two groups. Many other factors, including student attitudes to the process of learning, could account for such a difference. Nor can it be claimed that these results are conclusive since data were only available for 18 non-submitting students compared to 53 grades for submitting students. Given these limitations, further analyses were made of the qualitative data from focus groups.

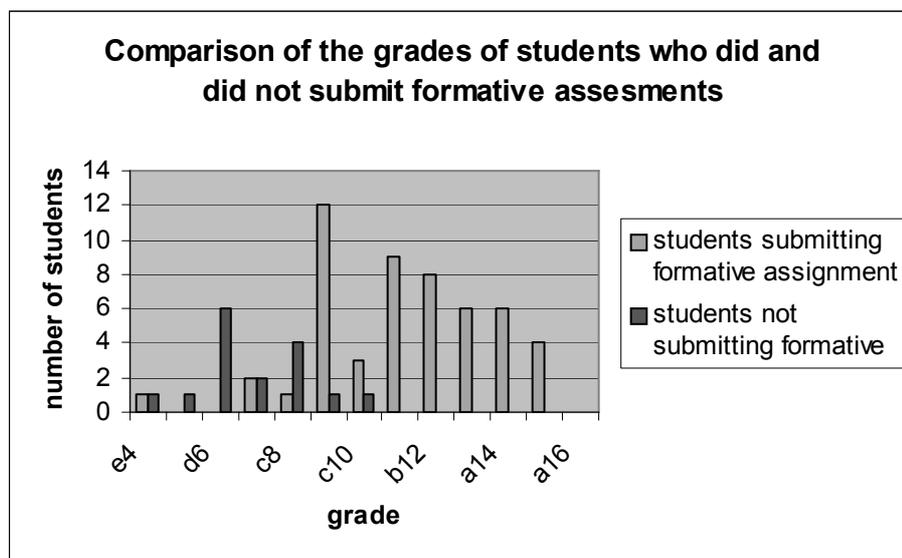


Figure 1

Qualitative analysis

The majority of those interviewed were positive about formative assessment and found that it helped them to:

- Get started early on the summative assignment.
- Collect information for the summative assignment.
- Structure their work.
- Identify key points for observation of child play.
- Explore the depth to which ideas needed to be explained.
- Find out how to expand and develop their initial ideas.
- Check that they had included appropriate content in the assignment plan.
- Check their referencing was correct.

The transcriptions below illustrate how the formative task helped in the ways summarised above:

*For me when I came to the formative assignment you told me my strengths and weaknesses so then I can go back and look over my work and think right now for the summative I need to do this. Hopefully it will help me to get a better grade so I think it's helpful for me personally.
(others nod in agreement)*

I suppose by doing all the research and stuff looking at play its got my mind set for the title now where as if I hadn't done until a few week from now and I hadn't chance to think about it, would have been so beneficial but because I started thinking about before Christmas when I'm looking through journals and things now and when I'm looking and seeing articles on play I have been able to photocopy them and everything building up my resources so in that sense I think it has been really really useful to have it before Christmas and think about it.

We've done our observations now and while we've been doing observations that its been useful to think we could use this theorist for that so it has been useful getting information before hand so we can make preparations

And with doing that on the formative you wrote bits on saying 'include this and that' where as if you hadn't done that you would've missed bits out wouldn't you?

And then with mine when I said Piaget said first hand information or constructive or what ever you were telling me that's Ok but you have to take it further you have to give examples (yes) If you had not done that I would not have known that I would not have known that and use first hand information. So I think it was really useful.

The findings from the focus groups confirmed what students had said in the summer interviews:

Student A: It gave the assignment an outline and speeded up the process of completing the assignment... It gave reassurance about being on the right track

Student C It identified point to elaborate on which I did. I answered the questions posed in the feedback. It helped with referencing format, making points clearer and the group discussion was useful. Being asked to explain how and why was useful

Student D It gave a foundation to the actual assignment; it starts you off so you can get straight into the summative (without worrying too much about content and structure). The mini essay was good because you had to research in more detail, it helped with referencing.

The students were particularly positive about the quality and format of the feedback. In particular, they were in favour of the 30 minute group feedback tutorials that allowed them to share their ideas about the different learning theories and discuss some of the positives and negatives of the theories that the students had outlined. This also allowed tutors a further opportunity to informally assess students' understanding and application of learning theories.

Although the particular type of formative assignment used in EY2000 was optional, the majority of students (53 out of 71) chose to submit it. Not all of those who submitted found it helpful. Comments suggest that students were more likely to tackle the task seriously where there was a clear connection to the summative task. Nevertheless all of those who submitted said that they would do so again if they could see a direct link to the summative assignment.

The essay format of the formative task was designed to offer the students a chance to start to outline positives and negative arguments related to the different theoretical perspectives. Some students did this and comments relating to the need for criticality were included in the feedback. However, none of the students interviewed mentioned this. When asked about what would improve the effectiveness of the task the students did not ask for support in developing critical writing. Since such skills are what will make the difference between C grade and higher, it would seem that further work is required to raise students awareness of the nature of critical analysis. It would seem appropriate therefore to develop formative tasks that encourage this to emphasises critical analysis in summative feedback and explore ways of engaging students' in the pursuit of an understanding the nature of critical analysis.

Future developments

These perceptions of the value of the formative assignment are interesting and, if they are fed back to students at the beginning of the academic year, it is anticipated that even more students will submit formative assignments and achieve higher grades in the future.

The evidence presented here, both in terms of student feedback and grade monitoring, suggests that many students do see this type of formative task as being supportive and perhaps linked to improved outcomes in the summative work even if this is only from the point of view of organising content and preparations at an early stage. The work suggests that in this particular case there is further work to be done to help students move their thinking and writing skills further along the critical continuum.

References:

- Black, P., Harrison, C., Lee, C., Marshall, B. and William, D. (2003) *Assessment for learning*. Maidenhead, Open University Press
- Brown. S., Race, P. and Smith, B. (1996) *500 tips on assessment*. London, Kogan Page
- Light, G. and Cox, R., (2001) *Learning and teaching in Higher Education*. London, Paul Chapman Publishing.
- Smyth, K. (2004) The benefits of student learning about critical evaluation rather than being summatively judged. *Assessment and Evaluation in Higher Education*. 29 (3).

Bibliography

- Jarvis, P., Holford, J. and Griffin, N. (2003) *The theory and practice of learning* 2nd ed. London, Kogan Page.
- Maclellan, E. (2004) How convincing is alternative assessment for use in higher education. *Assessment and Evaluation in Higher Education*. 29 (3) pp. 311-321
- Moon, B. and Murphy, P. (eds.) (1989) *Developments in learning and assessment*. London, Hodder and Stoughton in association with the Open University.

Appendix 1

Schedule A - Focus group interview questions on formative assignments.

Conducted when students had received oral and written feedback on their formative assignments.

Have you all submitted formative work for this module?

Was it helpful to you and if so how was it helpful to you?

Has it helped any of you in different ways to that?

Have you learned other things from doing the formative assignment not just the discussion session but from thinking what you were going to put down?

We asked to include references as part of your formative assignment did you do that?

What do you think about the way that the formative assignment was responded to? i.e. it was responded to in a group for discussion, as well as receiving written feedback.

Would you have wanted it to be responded to in a different way?

We thought about collecting the paper in and writing comments without a group discussion as well.

It sounds like you acted on the suggestions and comments you heard?

Is this the first formative assignment that you've done?

Do you think it is important and although there are no marks for it do you think you would do formative assignments in the future?

From our point of view we see a clear link between the formative and the summative.

What style did you do your formative assignments in bullet points, text...?

There are 4 things that we are looking for in marking the summative assignment.

Critical thinking, synthesis, writing style, referencing. We have talked about referencing and ideas already what about writing style? Can this be covered if you use bullet points?

- What about critical thinking?