

## **Educational Developers Caucus (EDC) GRANTS - 2012**

### **Final Report**

#### **Title of Project:**

*Increasing Student Success through Formative Assessment*

#### **Principal Investigator:**

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#### **Overview of the project:**

The project studies, in a scientific way, a method of teaching analytical thinking and writing which intentionally places formal formative feedback in a unique position in the instructional sequence. Traditional practice in writing courses provides informal feedback to students as they prepare their work and gives extensive feedback at the time that their work is graded. The assumption is that the student will apply the feedback to subsequent work.

This study examines how the learning of the student is affected if extensive formal feedback is given before the paper is actually graded, so that the student can apply the feedback immediately. This practice is rejected by most teachers of English because they fear that they will be editing student drafts.

The study specifically:

1. Compares the overall grades of a group of students (n=40) who were offered teacher feedback before their work was graded (experimental group) with students who received teacher feedback when they received their graded paper (n=43) (control group).
2. Compares the overall grades of the student in the experimental group who availed themselves of the formative feedback offered with students who did not use this opportunity

3. Determines if there is a difference in the quality of the learning between both groups of students

The study was carried out at a college in Quebec with students in two 103 Literary Theme courses (Coming of Age) in the Winter term of 2013. It involved a total of 83 students; 40 in the experimental group and 43 in the control group.

### **Purpose**

After spending 30 years providing students with feedback on their writing that is often ignored, I decided to see what happened if this feedback was put where the literature suggests that it be placed, that is, before their essays are submitted for grading (Wiggins, 1998). This practice is rejected by most teachers of English because they fear that students will not submit their best work and the teacher will spend their time editing student drafts.

To prevent this from happening students are invited to submit their best work for formative feedback one week before their final submission is due. If they get a “green light” they can apply my feedback but do not have to come to the next class; “a yellow light” signals caution and they can come to the next class if they want to; a red light means they need to come to the next class and sit down beside me (true assessment). This class is referred to as *The Workshop Class*. Participating in the formative feedback system is voluntary. If the student does not submit their work for feedback they attend *The Workshop Class* by default. Consequently, at the class preceding the deadline for submission, students in attendance can get the attention they need while the other students move closer to becoming independent writers and learners.

Feedback is information provided by an agent (e.g. teacher, peer, and parent) regarding one’s performance or level of understanding (Hattie & Timperley, 2007; Nicol & MacFarlane-Dick, 2006). Few educators would disagree with the premise that feedback is central to student learning and needs to be viewed as an important aspect of the assessment process (Shepard, 2000; Shute, 2008). When and how feedback is provided can have a major impact on the learning outcomes. Traditionally, in a literature and composition class, it is given between performances. A submitted paper is graded and the teacher hopes that the student applies the feedback given to their next assignment. This approach assumes, however, a level of maturity

and motivation that is not always exhibited in college students. Wiggins (1998, p. 43) argues that we need to stop viewing feedback and its use “as what occurs between assessments and start construing it as the core of what we need to assess”.

For teachers of literature this idea translates into the need to provide formative feedback during the writing of an essay, before it is submitted for grading, so that students can apply or disregard the feedback on their performance. This, for many, represents a radical change in practice. Some might view it as cheating, while others see it as turning the teacher into a copy-editor.

From my perspective as a teacher, this approach seems to be an improvement over giving written feedback on essays at the same time that a grade is awarded and is more satisfying from the teacher’s perspective. The EDC Grant allowed me to study my practice from the perspective of a researcher.

## Data Analysis

### Determining the equality of groups

The first step was to establish that the two sections of *Literary Themes 103: Coming of Age* were equal in overall academic achievement. Two measures were used: 1) incoming high school averages, and 2) the results of their 101 English course where a common essay is written by all first term students and scored blindly by members of the English Department. An independent t-test was administered to compare the groups on each measure. No significant differences were found.

### Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
ENG_101_GRADE	Experimental	41	76.83	8.012	1.251
	Control	45	75.91	7.648	1.140

### Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
HS_AVG_GEN	Group 1	40	78.95	6.114	.967
	Group 2	46	79.35	5.169	.762

### Choosing the experimental group:

The experimental group was randomly selected through a simple lottery.

### Establishing inter-rater reliability:

During the Fall 2013 semester, two subject-matter experts evaluated three essays written by each student in the study for a total of 249 essays. The subject-matter experts were members of the college's English Department. They were intentionally not told about the purpose of the study. The papers of both sections were mixed together (n=249) and given to each evaluator at the same time. Student names were removed; student ID numbers were used for identification purposes.

Inter-rater reliability was not satisfactory after the first reading of the essays. This prompted a second an extensive training of the evaluators and a re-read of the essays. As the budget and committed time was already spent, the second-reading of the essays extended over several months. On the second round, however, inter-rater reliability was .83.

### Measures

Each student submitted three essays: E1, E2 and E3. Once inter-rater reliability was established a new grade for each essay was determined for each student by averaging the grade awarded by each evaluator. Then, the three new essay grades for each student were combined to find an overall grade for their performance on the three essays. This is the measure that was used for the final analysis.

Students submitted their essays electronically to the teacher who provided feedback in a dialogic manner typing within their essays in a conversational tone (Bloxam, S. & Cambell, L., 2010).

## Analysis & Results

Results indicate that the students who availed themselves of the formative feedback system offered by the instructor scored higher on their overall essay grade than students who did not seek teacher feedback before they submitted their essay for grading. An independent t-test was administered to compare the experimental with the control group. A significant difference was found at a .03 level, with students who took part in the feedback process achieving a mean of 77% with students who did not participate achieving a mean of 72%.

### Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Essay1F	Experimental	42	77.643	11.4307	1.7638
	Control	39	72.359	11.0185	1.7644

This research project sought to study formative assessment in action. It was designed around the seven principles of good feedback in action (Juwah, et al., 2004) and sought to determine, in a scientific way, if formative feedback given during the production is more effective than feedback given when the performance is over. Results suggest that, indeed, it is worth the effort (Price, et al., 2010).

## Budget

- a. \$2400
- b. The \$2400 was spent to pay the two subject-matter experts to evaluate 240 essays. Each expert received \$1200 from the EDC Grant.

## Conference Presentations and/or publications based on the project:

A proposal to present the results of this research at the 2014 STLHE Conference held at Queens University was submitted. Unfortunately, it was not accepted.

## References:

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*My sincere thanks to EDC for their support and patience. This work has had a major impact on my teaching and on the many teachers I have the privilege of teaching.*