



Classroom Assessment

Theory and Practice

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1. INTRODUCTION

This independent inquiry project focuses on assessment. Given the overall size and depth of this topic, this inquiry directs its attention on teachers' and students' *classroom* assessment of learners. In other words, this is not an inquiry into the assessment of learners from *outside* the classroom, say, through the use of standardized tests.

This inquiry is driven by the following questions:

- What is classroom assessment, its definition and purpose?
- How does formative and summative assessment differ?
- What does academic research say about classroom assessment?
- What are current classroom assessment practices advocated by Alberta Education?
- What does classroom assessment look like in practice?
- As an aspiring teacher, how do the theories and current practices of classroom assessment materialize within my own Philosophy of Teaching?

This inquiry proceeds as follows. Section 2 defines classroom assessment, the differences between formative and summative assessment, and the background academic research. Section 3 studies the assessment practice advocated by Alberta Education, while also focusing on assessment *in* practice, drawing on evidence from Calgary Board of Education schools. Following careful reflection of the theory and practice of classroom assessment, section 4 begins to formulate my philosophy of assessment, within the larger scope of my philosophy of teaching. Section 5 concludes.

2. OVERVIEW OF CLASSROOM ASSESSMENT

2.1 DEFINITIONS AND PURPOSE

The first lesson in understanding classroom assessment is distinguishing between assessment and evaluation. While some use these two terms as synonyms, their meanings clearly differ. In this study, assessment, commonly referred to as *formative* assessment, is the process of gathering information about student learning, which, in turn, is used to drive classroom teaching practice. Black and William (1998) define formative assessment as, “...encompassing all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged” (p. 7). This is the definition this inquiry will adopt. In contrast, evaluation, commonly referred to as *summative* assessment, is the process of gauging whether or not students have learned what they needed to learn and how well they have learned it (Davies, 2000). In more general terms, formative assessment is providing students with descriptive feedback, from different perspectives and in many forms, *during the entire* learning process, while summative assessment emerges at the *end* of the learning process.

2.2 ACADEMIC RESEARCH

Over the past two decades, substantial research has been conducted on the effects of formative assessment on student learning. While a large part of the information in this section is taken from Black and Williams (1998), the work of Davies (2000) is also heavily referenced.

Davies (2000) advocates a three-part cycle to continuous classroom assessment:

1. Teachers review the curriculum to establish the learning that students are expected to accomplish;
2. Once these expectations are established, teachers work with students, inviting them into the assessment process by talking about the learning, showing samples, and discussing the types of evidence that might illustrate their learning; and
3. As students become partners in the assessment process, they themselves talk about what needs to be learned, give and receive descriptive feedback, and, periodically, partake in self-assessments and goal setting exercises. Finally, the cycle resets as students continually re-assess the learning criteria.

What is the purpose for this type of assessment cycle in the classroom? Dewey (1933) argued vociferously that learning and reflecting on that learning should be thought of as a continuous loop: that is, learn, assess, then learn some more. Prominent educational researchers argue for this type of assessment loop today. Davies believes that involving students in the assessment process *before* any learning endeavor highlights possible strategies, explains students' options, and encourages collaboration with others. This type of involvement represents a significant shift in student behavior, away from passive learning towards active learning. There are many positive results culminating from this shift, including an increase in student ownership over their learning and the ability for students to self-monitor their learning. Ownership leads to pride, while the ability to self-monitor increases student independence. Self-monitoring and self-assessing are closely related – monitoring is a by-product of assessing.

While self-assessment gives students insight into their own learning, it also allows teachers to garner a much higher understanding of students' learning needs. In short, Davies' approach to assessment as a cycle, guides teachers' teaching using student understanding.

In reviewing a decade's worth of international research on formative classroom assessment, Black and William (1998) condense their findings into four main themes, as found in Davies (2000) and explained below¹:

- Involving students in their own assessment requires them to reflect upon their learning *and* communicate their findings, through a variety of media, helping students learn;
- Self-assessments require students to make *choices* in the focus of their learning. Research shows that this choice in the topics of focus increases student achievement;
- In classrooms where students are involved in their assessment, “mistakes” are seen as feedback, allowing students to process the feedback and thus improve their learning; and
- Inviting students to take part in their own assessment *and* increasing the amount of formative assessment, while decreasing the amount of summative assessment, significantly increases student learning. Further, while all students show gains, students who usually achieve the least show the greatest gains.

¹ For further information on the studies summarized by Black and William (1998), please see Davies (2000) p. 9.

Much of this section has focused on formative assessment. Summative assessment is briefly discussed below. Whereas formative assessment is conducted throughout the learning process for many reasons, summative assessment is performed at the end of the assessment cycle for very specific reasons. During the summative assessment phase, evidence is gathered, compared to the requirements established jointly at the outset of the learning exercise, then shared with students and parents in the form of, say, a report card. What is important to understand is that summative assessment is impossible, or worst meaningless, without the various components of formative assessment described above: teacher developed descriptions of learning, descriptions of how success is achieved, and, finally, the compilation of evidence. From this viewpoint, Davies (2000) writes, “Evaluating and reporting are straightforward last steps in an assessment process that begins much earlier” (p. 67).

During the summative assessment phase, it is crucial that teachers understand the inherent subjectivity of the exercise, therefore the more collaboration between students, parents, and teachers, the more accurate the evaluation will be. Furthermore, research shows that the use of letters, symbols, or other types of grades has an adverse effect on all students’ learning, with the exception of those students with high ability and high achievement (Davies, 2000).²

² For original research titles, see Davies (2000) p. 73.

3. ASSESSMENT IN PRACTICE

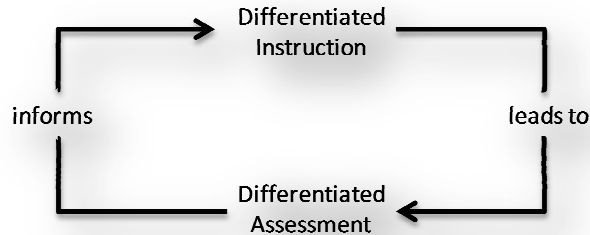
This section studies assessment in practice. Section 3.1 focuses on the beliefs advocated by Alberta Education. Section 3.2 closely examines the assessment practice and philosophies of one Calgary Board of Education school.

3.1 ALBERTA EDUCATION ON ASSESSMENT

In this section of the inquiry, the focus shifts to Alberta Education's views on assessment as outlined in the resource *Making a Difference* published by the Government of Alberta, henceforth referred to as Alberta (2010). The above study focuses on the current theory and practice of differentiated instruction in Alberta. Classrooms in Alberta are diverse, with students offering a variety of cultures, backgrounds, interests, and strengths. In Alberta (2010), the authors promote the use of differentiated instruction, or personalized learning, as a means of amplifying learning in *all* students. A significant element of differentiated instruction is differentiated assessment, which is the core of this section.

Differentiated assessment has several meanings. In Alberta (2010) the authors define it as "...selecting tools and strategies to provide each student with the best opportunity to demonstrate his or her learning" (p. 46). Following Wiggins and McTighe (2005), Alberta Education advocates a cycle of differentiated assessment that *informs* differentiated instruction, which, in turn, *leads to* differentiated assessment. Employing this type of cyclical assessment provides teachers with the ability to tailor instruction to each student. Teachers are also given the opportunity to gauge students' strengths and areas of growth during the entire assessment and instruction cycle – as Ayers (1993) argues, knowing your students is not

a static endeavour, neither should be their assessment. This assessment cycle is visually displayed below, as cited from Alberta (2010) p. 46.



The underlying goal of differentiated assessment is, therefore, adopting classroom assessment strategies that are flexible in their ability to adapt to *groups* of students, *not* necessarily individual students – an individual assessment plan for each student is, *at times*, unwarranted and/or unmanageable. Alberta (2010) offers scenarios as examples of desired differentiated assessment practices:

- ***Supporting students with learning difficulties*** – this scenario suggests using strategies present in one student’s individual program plan (IPP) to facilitate the learning of other students in the classroom displaying similar learning needs;
- ***Rethinking grading practices*** – while one-size-fits-all grading approaches do not allow for individual interests, learning preferences, or readiness, Alberta Learning recommends grading practices that make allowances for student choice and flexibility in the timing of assessments;
- ***Assessment for learning practices*** – also called formative assessment, in this scenario these practices include many strategies, for example the KWL strategy: “what I know, what I want to know, and what I learned” and goal setting.

3.1.1 IMPLEMENTING ASSESSMENT *FOR* LEARNING

Building on last section's examples of differentiated assessment, this section discusses Alberta Education's five-step process for planning formative assessment, as introduced in Alberta (2010) p. 52.

1. ***Determine the purpose of assessment*** – the overall goal of the assessment will likely drive the types of strategies that will be implemented.
2. ***Establish a focus*** – formative assessment presents the teacher an exceptional amount of information, therefore it is crucial for the observer to have clear focus. In this context, the teacher may elect to focus on the students' specific learning outcomes, rather than focusing on the sequential phases of learning.
3. ***Select a suitable strategy*** – assessment strategies are abundant hence it is important for teachers to choose one that is appropriate. Alberta (2010) recommends using the following guidelines:
 - Select a strategy that matches the assessment's purpose *and* focus;
 - Choose a strategy that students will enjoy;
 - Determine the ideal timing for assessment;
 - Decide the amount of time to be used during assessment;
 - Establish how students may feasibly display their learning and knowledge;
 - Adapt and modify the assessment strategies being utilized.
4. ***Record the results*** – this step involves documenting the assessment results for later use. At times this record-keeping will be internal and at other times external, for example to authenticate students' learning.

5. ***Interpret the results and act*** – taking note of the results signifies only one part of the recording phase of assessment. Teachers must interpret, analyze, and process the information gathered in order to drive their teaching and maximize the value of their formative assessment.

3.1.2 IMPLEMENTING ASSESSMENT OF LEARNING

Whereas the final step of formative assessment involves interpreting data gathered for the purpose of guiding teaching, assessment *of* learning – or summative assessment – includes interpreting assessment results for the sole purpose of evaluating student performance. This section will synthesize Alberta Education’s views on summative assessment, and how it can be skillfully accomplished in practice.

Alberta (2010) promotes the use of various customizable evaluative tools offering students the ability to demonstrate their learning through multiple avenues. In contrast to students completing *one* assessment task at *one* pre-determined time, differentiated assessment practices involves tendering multiple assessment tools to students. As such, students are given choices to demonstrate their learning, and teachers are given multiple pieces of evidence to evaluate student learning throughout the exercise. For example, if students show significant growth in their knowledge of a subject, teachers may choose to discard summative assessment data gathered early in the learning task. Conversely, if students have sufficiently demonstrated their knowledge early in the task, it would be superfluous to require further summative assessment – indeed, more is not necessarily better.

A further common theme arising from Alberta (2010) is the involvement of the student. In multiple sections of this inquiry, the involvement of students during the formative assessment phase has been continually stressed. The same belief applies to summative assessment. Inviting students to answer the question “how will I know I have learned?” establishes and develops their ownership over their learning. Moreover, students are presented with a clear goal at the outset of the task.

Alberta Education believes summative assessment ought not to be uniform or standardized across all students. Assessment *of* learning allows students the opportunities and strategies to fully demonstrate their learning, which may, and likely will, vary among students.

3.2 ASSESSMENT IN SCHOOLS

Building on the previous section, the following segment will focus on the approaches used to implement differentiated assessment practices in one Calgary Board of Education (CBE) school. The information in this section was collected in the course of an interview with the school’s principal then synthesized for this study. While most of the conversation revolved around formative assessment, the issue of provincial achievement tests (PATs) was also discussed.

The first topic of conversation was the philosophy of assessment of this principal and this school. Assessment is preached as formative and broad-based, primarily to accommodate for the personalization of both students *and* teachers. As discussed above, formative assessment theory promotes affording options for students to display their learning. To accomplish this, this principal believes students must be carefully observed and given

appropriate tools and options to succeed in school. The example used in this conversation involved teachers scribing for students that have difficulties with writing. By doing this, the student is given the opportunity to display their full knowledge of a subject, while the teacher temporarily looks past the difficulty in writing to assess their learning in one specific area.

Moreover, teachers must also be given the freedom to assess their students using a variety of strategies, and this principal believes these strategies should be largely dictated by individual teachers, not administration. However, it is important for the school to be *consistent* across certain curriculum areas, for example literacy, where assessment is largely subjective.

Throughout the conversation, it was evident that the CBE is given flexibility in the *interpretation* of Alberta Education's guidelines. Along the same lines, schools within the CBE are also afforded some flexibility in their interpretation of the guidelines set forth by the CBE – some policies are non-negotiable, while others are open for discussion.

The final theme of the conversation revolved around the provincial achievement tests. This inquiry has dedicated minimal time to the discussion of standardized summative assessment tools; however, one is unable to avoid studying standardized testing while researching assessment. At the school level, this principal believes that PATs make up one piece of assessment and, when analyzed and studied *within* that context, PATs can be valuable assessment tools. The major issues arise when standardized tests are incorrectly perceived to accurately reflect the complete knowledge students have acquired in particular curriculum areas. As Ayers (1993) believes, standardized tests can measure and consider students'

knowledge of isolated skills and specific facts and functions. Analyzed and understood in this context, while remaining mindful of their flaws, PATs are important assessment tools.

4. PHILOSOPHY OF ASSESSMENT

The preceding four sections of this inquiry have focused on the academic research and practice of assessment. This section concentrates on formulating my personal philosophy of assessment, within the larger context of my philosophy of teaching, by focusing on the research discussed in this inquiry and the significant teaching wisdom gathered from classes this semester.

Assessment is a substantial part of the practice of teaching and, much like many aspects of a teacher's role, its execution is a personal affair. Nevertheless, I believe there is significant benefit from teaching practices that are heavily driven by formative assessment. In particular, I believe formative assessment fosters an environment of continuous growth in the classroom for all three vertices of Elmore's Instructional Core: student, teacher, and content.

Students' learning grows and benefits from the constant feedback they are offered, as well as the opportunity of ownership they are given over their own learning. I believe students that are presented with leadership opportunities in the classroom – for example through student-led feedback sessions – flourish in the classroom, while increasing their engagement level and commitment to learning.

Teachers also profit from the practice of formative assessment. As students become more involved in their learning, their excitement *for* learning also grows. Fried (1995) describes

students' growing excitement *for* learning in the context of teaching: "...the act of teaching has more to do with preparing a learner to be an eager seeker of new skills than with nailing down pertinent data" – indeed, students must understand *how* to learn, not solely *what* to learn. Formative assessment is one of the most powerful tools a teacher utilizes to prepare students for this type of life-long learning.

The final aspect of the Instructional Core is content. Much like the previous two vertices, content is also extensively enhanced through the use of formative assessment in the classroom. When assessment is used to empower students while requesting their input into what needs to be learned, content and curriculum are no longer perceived as ends, but as means to develop expertise. When students are challenged with becoming experts in the content being studied, the content becomes a living, breathing entity full of learning opportunities.

5. CONCLUSION

This inquiry has examined many aspects of assessment. It began with a discussion of the academic research that surrounds both formative and summative assessment. This discussion led to the development of ideal practices of classroom assessment. Next, the inquiry considered Alberta Education's views on assessment, both *for* and *of* learning. Also in this section, input from a CBE principal was synthesized as a means to better understand assessment in practice. The final section was a personal reflection on the author's budding philosophy of assessment, in specific relation to the many benefits of formative classroom assessment – to students, teachers, and content.

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