

## Assessment for Learning in a Special Education Setting

This paper reports on a research project that examined the impact of an Assessment for Learning (AfL) approach on the learning of two teenage boys, both with Asperger's syndrome. The research was inspired by a video on *Teachers' TV* (2007) which demonstrated AfL techniques being implemented in Durham, England in a classroom that was similar to the one in which the first author works. The video featured teachers implementing assessments using AfL principles as outlined by Black and Wiliam (1998). The level of success attained using different AfL approaches prompted the question of whether or not similar benefits would accrue in an Irish context. The authors report how, within the context of a larger study, the implementation of AfL techniques affected the learning of the two particular students.

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### ASSESSMENT FOR LEARNING

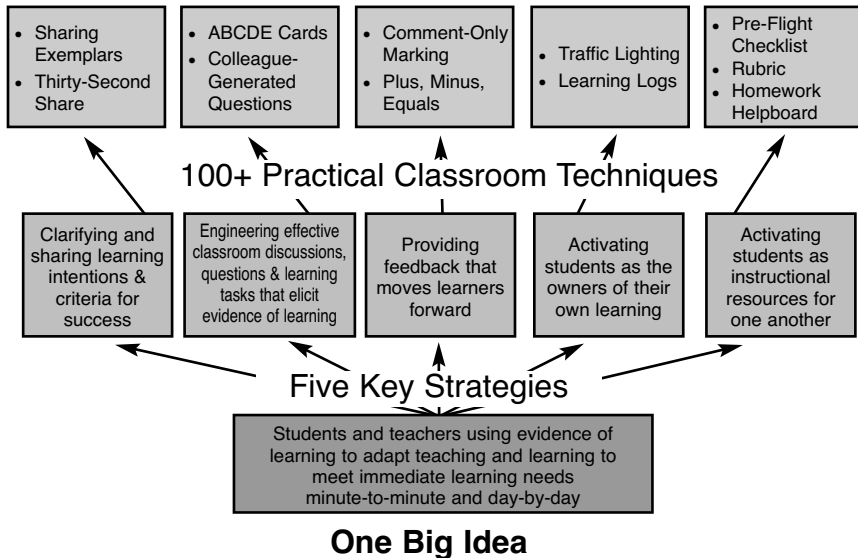
Assessment for Learning (AfL) is a relatively new term in the Irish education context. O'Leary (2006) refers to it in a paper outlining a proposal for a balanced assessment system for Irish primary and secondary schools and it features strongly in the recent assessment guidelines for primary schools (National Council for Curriculum and Assessment (NCCA), 2007). Essentially an AfL strategy is any assessment undertaken by teachers or learners that supports the process of teaching and learning while they are ongoing. There is little written specifically about AfL in special education contexts. However, much of what is advocated in the general literature may be applied, with modifications, to most education settings.

#### Inside the "Black Box"

It would be difficult to discuss anything pertaining to formative assessment without referring to the work of Paul Black and Dylan Wiliam, and especially their

series of *Inside the Black Box* articles (Black and Wiliam, 1998). Their research and commentaries are important in so far as they focused on what happened inside the classroom (the black box) as opposed to what was fed into it in terms of inputs/resources (e.g. class size) or what emerged from it in terms of outputs (e.g. test results). They were interested in the actual teaching and learning that occurs or as they described it, "...the quality of pupil teacher interactions" (p.15). Their conclusion, following a review of hundreds of other studies, was that, in the hands of skilled teachers, formative assessment had the potential to leverage a greater change in achievement than any other intervention with which they were familiar. In addition, they noted that while AfL had a positive impact on all learners, it had a disproportionate positive affect on low achievers. Using the growth in achievement findings reported by Black and Wiliam, O'Leary (2006) estimated that AfL had the potential to improve the performance of children in mainstream primary classes by fifteen percentile points on standardised tests such as the MICRA-T (Wall and Burke, 2004) or Drumcondra Primary Reading Tests (Education Research Centre, 2007). The impact on the state examinations was estimated to be in the region of 100 Leaving Certificate points across six subjects taught by teachers applying AfL principles.

In both the UK and the US, a great deal of research on AfL followed the publication of Black and Wiliam's work (Black, Harrison, Lee, Marshall and Wiliam, 2002; 2003; Shute, 2007; Wylie, 2008). In Ireland a project supported by the NCCA at Junior Cycle (NCCA, 2005a; 2005b), as well as work in the area of literacy by Lysaght (2009) and in art by Collins and O'Leary (2010) served to contribute to a growing body of research worldwide. The essence of all this research is captured in a 2008 conference paper by Thompson and Wiliam who describe how one big AfL idea led to five key AfL strategies which in turn linked to hundreds of AfL techniques (Thompson and Wiliam, 2008). A visual representation of these relationships is presented in Figure 1.



**Figure 1: How the big idea, five key strategies, and practical techniques of AfL are related (adapted from Thompson and Wiliam, 2008).**

### **AfL and Special Education**

As there is a dearth of research available on AfL in special education settings, the work of Porter, Robertson and Hayhoe (2000) is particularly noteworthy. It was carried out with adults with special educational needs in the Birmingham area using a “student-centred assessment” (p. 4) approach to teaching life skills. Key AfL principles were applied. Porter et al. concluded that AfL strategies, such as sharing learning intentions with learners and think time, were successful in promoting learning especially when there was an emphasis on sourcing material and tasks that were of interest to the students. However, the researchers added a caveat about using self-assessment in special education settings that is worth bearing in mind, “Teachers may feel concerned about encouraging evaluative comments...where it draws attention to their difficulties rather than their strengths” (p. 24). There is always a concern where students are functioning at a lower level than their peers that the students themselves may focus on what they are not good at. As a positive frame of mind is crucial to a successful learning outcome, teachers may need to evaluate very carefully the means by which they introduce self-assessment. That said, the lower pupil-teacher ratio that often applies in special education contexts may provide a good opportunity to engage with some of the key AfL strategies as is shown on the video of teachers in

Meadows School (Teachers' TV, 2007). While not a research project *per se*, the video presents some useful data for commentary.

Meadows School caters for teenagers with emotional and behavioural difficulties, some of whom also have mild general learning difficulties. It is a setting very familiar to the first author who teaches in a similar situation. The video shows AfL techniques being implemented as a result of a school policy that had been in existence for seven years. It demonstrates how AfL strategies such as sharing learning intentions and success criteria, think time and comment only marking are used to improve student achievement step by step. Assessment grids play a special role here with students using a grid to highlight (with colour markers) successful completion of tasks related to criteria in English, art and information technology and to identify what the next steps in the learning will be. The experience of observing the successes of Meadows School was an important spur to the undertaking of the research described in the following section.

## **RESEARCH CONTEXT**

The educational setting in which this research took place is a special school which caters for students with severe emotional and behavioural difficulties (EBD). Many of the students also have mild general learning difficulties. Whereas the overall study involved the evaluation of the feasibility and impact of implementing AfL in a special school setting for students with EBD, the findings described below relate to a smaller section of the research focusing on the learning of two particular boys. The boys' names have been changed to protect their privacy.

## **METHODOLOGY**

### **Participants**

David is a talkative fourteen-year-old boy who has a narrow and often obsessive range of interests, which can be explained by his Asperger's syndrome. He is immature both socially and academically and responds to behaviour modification programmes that would normally be used with children aged four to seven years old in a mainstream setting. It is extremely difficult to motivate David to begin or to complete tasks.

Mark is a quiet fourteen-year-old boy with Asperger's syndrome who has expressed a desire to transfer to a mainstream school and is motivated to succeed in academic tasks. He has reading and comprehension difficulties and has extreme difficulties with mathematics. Many of his oral interactions are of a superficial

level and it is often a challenge to obtain meaningful responses and feedback from him.

### **Study Design and Action Plan**

An action research approach was employed for the research as it "...promotes reflection and self assessment... and instils a commitment to continuous improvement" (Glanz, 2003, p. 19). As Denscombe (2007) points out, action research "...sets out to alter things" (p. 122) and is eminently suitable for small-scale research in a classroom situation. The essence of action research involves action and data collection in a cyclical pattern so that the practitioner can make changes based on evidence. In many respects it goes hand in hand with AfL which is formative and constantly shaping new learning as a result of assessing past learning.

David and Mark were invited to take part in a geography project involving eight forty-minute lessons to be conducted in a quiet room away from the regular classroom in the school. They agreed to participate in the study following discussion and explanations. Approval was also granted by the boys' parents and the school principal. Geography was chosen as a curricular area to focus on because the class had recently selected a new geography textbook (which also contained some content normally found in science textbooks) and the two boys were keen to use it. The project took place over a six-week period.

Initially, the term "learning intention" was introduced and explained to the boys. For example, "We are learning to explain why certain objects float and certain objects sink" was a typical learning intention discussed. Then the term "success criteria" was introduced as how you can show yourself and others that you have succeeded in the learning intention. Again, examples were used to illustrate the idea. The success criteria agreed in discussion with the boys for the learning intention on floating and sinking were:

- **I did an experiment to show if four different objects sink or float and I explained the results**
- **I drew a picture to show what I discovered.**

Each lesson began with an oral sharing of learning intentions for the lesson followed by a discussion on what the success criteria might be. All learning intentions and success criteria were recorded on the white board and remained there for the duration of lessons as recommended in the literature (Clarke, 1998; 2005).

## **Data Gathering**

Three types of data were gathered throughout the course of the six weeks; observations recorded in field notes during lessons, reflections recorded in a journal after lessons and feedback from the boys in oral and written forms. The recommendations for observational data gathering made by Sparadely (1979) and Kirk and Miller (1986), cited in Cohen, Manion and Morrison (2007, p. 407), were followed and four sets of observational data were compiled:

- **notes made in situ**
- **expanded notes made as soon as possible after the initial observation**
- **journal notes to record issues, difficulties etc. that arose during lessons**
- **a record of analysis of observations and data gathered from feedback from students following each lesson.**

## **FINDINGS**

Overall, the research findings suggested that the boys were positively disposed to the intervention and enjoyed the lessons due in part, it must be acknowledged, to the fact they often took place in a different room and were exclusive to the two boys. In the spirit of action research, modifications were made throughout the period to how the learning intentions and success criteria were utilised and suggestions from the two boys were incorporated into the process.

### **Developing the Concept of Learning Intentions**

The boys understood the concept of learning intentions relatively quickly. Mark initially had some difficulty with the concept and described it as “intelligence and facts.” When pressed, he said that the learning intention was what he was going to learn and that he needed intelligence to do this. Later on he explained that the learning intention helped him to understand how well he would learn during the lesson. This level of meaningful dialogue was unusual for Mark and he was very pleased that he was succeeding at these tasks. David understood the concept of learning intentions from the beginning describing them accurately in terms of “...what you are going to learn”.

The scaffolding provided by the success criteria was very helpful to both boys. Indeed it was noted that David demonstrated an unusual level of enthusiasm for undertaking a task once the success criteria had been discussed with him. During the second lesson he even suggested putting two tick boxes after each success

criteria, one for each boy to tick off, to show what they had learned. As a result of David's suggestion, the success criteria were written on cards with tick boxes from that point on.

The placing of the learning intention on the white board acted as a reminder to the boys of why they were engaged in activities and seemed to make the learning more tangible for them. Throughout lessons the boys were reminded of the learning intention and how they were working towards achieving the success criteria. At times this helped to focus their work and it was noted that on one occasion Mark reminded David that he should pay attention or he would not be entitled to tick the box. Again, the success criteria facilitated the use of think time which helped the boys to construct better answers to questions before responding. At the end of one lesson the boys were asked if they felt they had succeeded in achieving the success criteria. Mark replied, "Half-way", and David said, "Yes, it was easier than I thought".

On one occasion David used the success criteria to negotiate how much work he was prepared to undertake. Four success criteria had been listed and he said he that he was prepared to achieve three. On this basis he approached the task on his own terms but did not refuse to take part as he had often done in similar situations in the past. The case could be made that the tangible nature of the success criteria prompted him to achieve, albeit on his own terms. The notes recorded in the reflective journal at the time indicate that having the learning intentions and criteria at hand at the start of the lesson gave David ownership of the lesson and provided him with a means to express that he was taking charge of his own learning and not following teacher's direction.

As the lessons developed, the boys, having initially doubted their ability to achieve the success criteria, grew in confidence. Mark went from saying, "I'll never manage that" (Lesson 2), to saying "I suppose I'll get most of it, I always do" (Lesson 4). He also noted that the existence of the success criteria, "Lets me know how good I'll get by the end". David described the success criteria as "scary" at first but then concluded that they made him "pleased" at the end of each lesson. The students also noted that they were surprising themselves at their levels of success. This outcome featured also in the Meadows School video.

### **Self-Assessment and Peer-Assessment**

The introduction of AfL techniques encouraged cooperation between the students and from this developed self- and peer-assessment such as is advocated in the assessment guidelines for Irish primary schools (NCCA, 2007). It was noted that

peer-assessment occurred naturally during the lessons and the field notes contain many descriptions of the boys giving each other feedback with reference to the success criteria. What was also interesting was that the boys realised that the success criteria could be achieved at different levels. For example, during a lesson on scale and plans, David, who had ticked the boxes and produced roughly done work, observed, “I did it even though Mark did it better”. They told each other they could not get a tick with a wrong answer. During the second lesson Mark told David that walking was not a method of transport. David disagreed and a discussion ensued. Mark said the only reason he “corrected” David was because he wanted him to be able to achieve all the success criteria. The field notes for that day contained a reference to the fact that the boys praised each other for achieving the criteria. This was significant as there was a concern that, for students functioning at a low academic level, self- and peer-assessment might highlight their deficits, as described by Porter et al. (2000). However, most evaluative comments made by the boys concerning their work were predominantly positive.

### **Composing Learning Intentions and Criteria**

As David and Mark had responded positively to the introduction of the two AfL strategies during the geography lessons, a decision was made to explore their understanding of the strategies by inviting them to compose learning intentions and success criteria for an English comprehension lesson. This occurred after the planned eight geography lessons. The activity consisted of a paragraph of reading followed by questions based on it. The boys identified the learning intention as being focused on facts about cereals, for example, “We are learning to list four facts about cereals”. They formulated the success criteria as follows, “Mark and David can explain by speaking, writing or drawing four facts about cereals”. They discussed whether it was necessary to include the reading of the text as a criteria or not, or whether it was necessary to complete the written exercise. This led to a discussion as to what the object of the exercise was. Was it a practice for reading and writing or were these the means of learning facts about the topic? This level of in-depth discussion between the boys was unusual.

### **CONCLUSION**

The results of the research suggest that the use of AfL techniques enhanced the learning process for the boys, and the teaching process in many ways. It helped to put a formal structure on the lessons, which can be appealing to students on the autistic spectrum. As the boys were functioning at low academic and communication standards the learning intentions and success criteria were often quite low level in terms of cognitive processing, for example, “We are learning to



name four airports in Ireland”. In instances such as these Torrance (2007) has suggested that there is a danger of encouraging “instrumentalism” whereby the level of transparency of the learning goals and the assistance in attaining them could remove the challenge of learning. Torrance calls this “criteria compliance” and argues that it may replace “real” learning (p. 282). The conclusion from this research is that this did not happen, certainly not with David who managed to alter the success criteria to accommodate his dislike of writing and questioned the purpose of each exercise. David was more inclined to apply success criteria strictly but this led to improvements in his work outweighing any possible negative effects.

There was a presumption on the teacher’s part that the boys would attain the success criteria to some extent as they were composed with success in mind, but it was not envisaged that they would display such an understanding of the strategies. The fact that they were able to transfer the AfL techniques from geography to English and mathematics was a revelation. This research indicates that boys like David and Mark can surprise themselves and their teachers with their abilities to transfer knowledge from one area of learning to another in remarkable ways. Mark’s ability to analyse the learning intentions for lessons and to discard unnecessary activities involved in the pursuit of success was quite surprising. Indeed, the sharing of learning intentions and success criteria proved to be a tangible way for both the students and the teacher to measure success, or to highlight gaps in understanding and was useful as a marker for pointing the way forward in the learning process.

While the findings from this research are positive and may encourage others to engage with AfL strategies in a special education setting, the limitations of the research should be borne in mind. This project involved just two students with very particular characteristics in a school setting that may not be typical. As part of her studies the teacher involved had an opportunity to engage with an AfL literature for a full year before implementing the project. All these factors militate against any suggestion that these findings would be replicated in other classrooms or contexts. That said, this research provides some evidence that AfL principles and approaches can be implemented in a special education setting with relatively positive results. Hopefully, this article will inspire further research in an area that requires so much more before we can be more definitive about how and why AfL makes a difference to our students.

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