

Aligning for Learning: Including Feedback in the Constructive Alignment Model^{*}

Gerry Gallagher

Dundalk Institute of Technology

Abstract

Constructive Alignment is an approach to curriculum design and delivery in which learning outcomes, teaching and learning activities and assessment are integrated to create the conditions for high-level learning. Increasingly, research acknowledges the critical role that feedback plays in learning. This feedback, if it is to be effective, needs to be based on and consistent with learning outcomes, assessment criteria and learning and teaching activities. This paper proposes that, although it may be implicit in the Constructive Alignment model, the potential of feedback to significantly impact on student learning warrants its explicit inclusion as a key element of the model. Moreover, feedback, and in particular formative feedback, provides ongoing opportunities for teachers and students to monitor the extent of the alignment of the existing three elements of the constructive alignment model. In this way, feedback can deepen the shared understanding of the learning design for both students and teachers and sustain its coherence

Keywords: Constructive alignment, feedback, dialogic feedback, learning outcomes, learning design, coherence.

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1. Introduction

Constructive Alignment is an approach to curriculum design and delivery in which learning outcomes, teaching and learning activities and assessment are integrated to create the conditions for high-level learning. Increasingly, research acknowledges the critical role that feedback plays in learning. This feedback, if it is to be effective, needs to be based on and consistent with learning outcomes, assessment criteria and learning and teaching activities. This paper proposes that, although it may be implicit in the Constructive Alignment model, the potential of feedback to significantly impact on student learning warrants its explicit inclusion as a key element of the model. Moreover, feedback, and in particular formative feedback, provides ongoing opportunities for teachers and students to monitor the extent of the alignment of the existing three elements of the constructive alignment model. In this way, feedback can deepen the shared understanding of the learning design for both students and teachers and sustain its coherence.

2. Constructive Alignment

Constructive alignment, as proposed by Biggs (1999), is an approach to curriculum design and delivery which seeks to optimise learning by ensuring congruence between learning outcomes, teaching and learning activities and assessment. It is essentially a student-centred approach which focuses on what the student does rather than on what the teacher does, as the student takes responsibility for constructing his or her own learning. The teacher's role is to devise learning activities which facilitate this and are aligned to what the learner is intended to learn. The teacher ensures that intended learning outcomes are clear, the teaching and learning activities are guided by the outcomes and the assessment tasks are an appropriate means of having students demonstrate what they have learned. When these three elements are in accord and support each other, students are trapped, as it were, in "a web of consistency optimising the likelihood that they will engage in appropriate learning activities" (Biggs, 1999, p. 26), making it difficult for them to escape the intended learning. Constructive alignment is often referred to as the 'Golden Triangle' as shown in Figure 1.

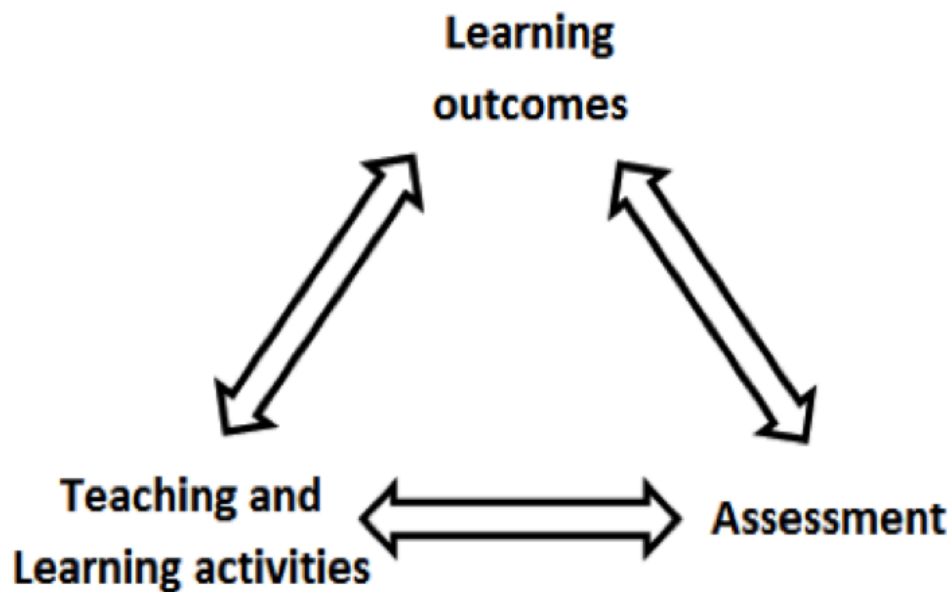


Figure 1. Constructive Alignment (Biggs, 1999)

3. Feedback

The central importance of feedback for learning has been increasingly recognised (Merry et al., 2013; Carless et al., 2011; Hattie and Timperley, 2007). Although recognition of the role of feedback may be implicit in Biggs' model of constructive alignment, this paper proposes that, given the developing perspectives on feedback and its potential impact on student learning and teaching design, the model should be extended to reflect the significant role that feedback plays in the teaching and learning process. Just as the three elements of the model need to be in harmony with each other, so too with feedback. To be most effective, feedback should be scaffolded on and aligned with the learning outcomes, assessment criteria and learning and teaching activities. Furthermore, for the teacher, providing feedback and monitoring peer feedback among the students, offers opportunities to evaluate the extent of this alignment on an ongoing basis with a view to adjusting or re-aligning as necessary. For students, receiving and providing feedback has the potential to make alignment more visible by clarifying goals and expectations, identifying gaps in knowledge and providing guidance on improvement towards the ultimate aim of achieving the learning outcomes.

3.1. Perspectives on feedback

Race (2005), argues that in the work of teachers giving feedback is second only in importance to making assessment judgements. However, despite its importance, students often report uncertainty, lack of clarity and consistency around assessment and feedback practices (Y1 Feedback, 2016a; Y1 Feedback, 2016b; Nixon et al., 2016; Mulliner and Tucker, 2015, Jessop, El Hakim and Gibbs, 2014; ISSE, 2014).

At its most basic, feedback provides information on one's performance in relation to particular goals (Wiggins, 2012; Hattie and Timperley, 2007; Nicol and MacFarlane-Dick, 2006). While it acknowledges achievement and identifies gaps in performance, feedback should also have a forward-looking or formative dimension which focuses on providing advice and guidance for improvement, frequently referred to as feedforward. This, according to Race, is "*the vital dimension as, given at the right time in the best possible way, it can lead learners steadily towards successful achievement in summative assessment contexts*" (Race, 2005, pp.98-99). In addition, formative feedback can help to clarify expectations and requirements for students. More recently, Carless (2015) has extended the concept of feedback further in proposing that only when the information and advice are used productively can they be considered as feedback.

Contemporary perspectives have also seen a shift from the teacher as the sole provider of feedback to viewing peers, and particularly the students themselves, as sources of feedback. So, having students provide feedback to peers and self, guided by learning outcomes and clear assessment criteria, is essential to the learning process if our ultimate goal as educators is to create self-regulated learners who will continue to learn long after their formal education has finished, (Carless, 2013, Nicol et al., 2014). This gives students more responsibility for the feedback process, reducing the need for teacher-provided feedback. Carless suggests that "our work as educators is sustainable when students have learnt with us, and are able to continue learning without us" (Carless 2013, p. 113).

While more formal formative and summative tasks such as class tests, essay drafts and quizzes provide opportunities for feedback, it can also take place in the informal settings of the classroom. In this way, it is ongoing and integral to the teaching process, taking place through participation in everyday learning activities and interactions in the classroom (Boud and Associates, 2012). This ongoing informal feedback is often not viewed as feedback but rather is seen as simply an aspect of good teaching (Sambell, 2015). Again, these interactions should acknowledge what has been achieved, identify and address misconceptions or gaps in understanding, offer guidance for improvement and motivation for moving forward. Thus, they provide opportunities for conversations about learning, assessment and outcomes. These

conversations, prompted by feedback, can constitute a dialogic process involving teachers, peers and self which is “an iterative process in which interpretations are shared, meanings negotiated and expectations clarified in order to promote productive use of feedback” (Carless 2015, p. 196). This dialogue can develop students’ assessment literacy and help them understand the ‘the rules of the game’, assumptions known to lecturers but less transparent to students (Carless 2006). By clarifying the learning and assessment process for students, feedback can help them to develop a fuller picture as they come to understand the connections between the learning outcomes, learning and teaching activities and assessment and how these are designed to contribute to their learning.

Thus, feedback is not confined to more formal assessment tasks but, rather, is “a complex *system* that needs to permeate the curriculum, rather than an activity that appears within it from time to time” (Molloy and Boud, 2013 p. 25). Formative activities, either formal or informal, all offer opportunities to provide and receive feedback. Sambell (2015) describes this as “short-cycle feedback, which is specific and contextualised, indicating to students how they are doing and whether they are moving ‘along the right lines’ ” (Sambell, 2015, p. 3). In this way, students can monitor and regulate their own performance by actively constructing their own understanding of the feedback, sometimes described as assessment as learning.

3.2. Feedback for alignment

Hattie and Timperley (2007) suggest that “effective feedback must answer three major questions asked by a teacher and/or by a student: Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?)” (Hattie and Timperley, 2007, p. 86). Moreover, they suggest that, for an ideal learning environment, both teachers and students should seek answers to these questions. This feedback, particularly where the dialogic aspect is present, provides an opportunity for ongoing monitoring of the alignment of learning and teaching activities with the outcomes and assessment, to ensure the teaching and, crucially, the learning is aligned as intended. In this way, both teachers and students have an opportunity to re-align or adjust their direction to stay within the “right lines”.

4. Constructive Alignment In Practice - Learning To Drive

To illustrate the concept of Constructive Alignment it may be useful to elaborate on an everyday example alluded to briefly by Biggs himself (Biggs, 2014), the process of learning to drive. In considering this process in the Irish context, it might be argued that not alone is it an example of constructive alignment but it also has many parallels to good practice in the learning, teaching and assessment process in general.

Firstly, the outcomes of the driving process are specified clearly for learner drivers. They are told that to pass the driving test they need to be able to:

- Maintain proper control over the vehicle at all time
- Show anticipation and awareness
- Take proper precautions when moving off, stopping, overtaking, changing direction and meeting other traffic
- Make safe and reasonable progress when driving and when meeting and crossing the path of other vehicles

(Road Safety Authority, 2016a)

The second element of the process consists of the activities that take place during the driving lessons in preparation for the test. Typically, during the mandatory driving lessons with their instructor, learners are taught the necessary skills. They practise these and increasingly are allowed to take individual control of the car and the responsibility for the driving themselves.

In each lesson, they may recap briefly on some theory questions (practice testing), recall and reflect on any practice they have done since the previous lesson (self-assessment). During the lesson itself, skills introduced previously are reinforced to develop mastery. Building on these, new skills are introduced and are to be practised and integrated before the next lesson. Throughout the driving lesson, the instructor monitors the learner's driving, focusing on what will be required for the driving test (the assessment criteria), perhaps points out good and bad practice from other motorists (exemplars) and provides feedback as the learner attempts to implement the various skills and manoeuvres, making suggestions for improvement or extra practice. All of this is done very much with a focus on what the learners will ultimately be required to do in the driving test, thus maintaining alignment between the learning and teaching activities, the outcomes and the assessment.

And, finally, the third element is the assessment of the learner's driving. This is carried out formatively during the driving lessons and culminates in the driving test, the summative assessment. Documentation on the test, which is available to learners before they begin the process, specifies the manoeuvres the learners will be assessed on and the different situations in which they will be assessed (Road Safety Authority, 2016b). In this way, the assessment mirrors or is aligned to the learning outcomes and will have guided the driving lessons.

The driving test is similar in format to the final few lessons and assesses the same skills as the instructor has been assessing formatively in previous lessons. Generally, learners are first asked a number of theory questions and then proceeds to drive a route and demonstrate the skills or manoeuvres that they have learned. Finally, on completion, they are informed as to whether they have passed or not (the grade) and receive some feedback on the number of errors they have made (the marking sheet). It is worth noting, also, that a measurement model is not used. Rather, the learner has either achieved the outcomes or not.

4.1. Learning to drive – the role of feedback

Integral to learning process prior to the driving test is the formative feedback provided by the instructor, peers, such as qualified drivers accompanying the learner, and the learner him/herself. In a typical driving lesson, for example, the instructor is likely to be giving ongoing feedback and, ideally, asking the learner for their own reflections on their driving. This feedback is guided by what the learner will ultimately be asked to demonstrate in the driving test. In monitoring the learner's progress and listening to the learner's reflections, the instructor will be able to identify gaps in performance but also, perhaps, gaps in the teaching or in the understanding of the outcomes. As the learner becomes more comfortable in the situation, they themselves may initiate conversations to clarify the feedback, discuss appropriate actions and identify aspects to work on. For maximum benefit, both learner and instructor should be clear on what is expected in terms of the final assessment and what the learner will be expected to demonstrate. Thus, the teaching and learning activities, supported by this ongoing feedback, particularly if it is dialogic in nature, will help ensure that the intended alignment between the learning outcomes, activities and assessment, formative and summative, is maintained. The feedback will allow the instructor and the learner to adjust or re-align the process as necessary to keep them both on the right track, as it were, and maintain the focus on the ultimate destination.

5. Implications for Designing Teaching

For us as teachers, constructive alignment involves us addressing a number of questions:

- What do we want the student to be able to do?
- How will we know if the student can do what is intended and what opportunities will we provide to allow him or her demonstrate this?
- What activities will we devise to enable the student to achieve the intended outcomes and how can we best ensure that these activities reflect or correspond to how we will eventually assess the student?

The process begins with the identification of learning outcomes which include action verbs indicating what the student will be able to do at the end of the learning unit, which may be a module, a topic or a class period. For example, an outcome might specify that a student will be able to “explain” the concept of constructive alignment. As teachers, we devise appropriate teaching and learning activities to enable the student achieve the learning outcomes Biggs suggests that these activities should be designed to activate the verbs in the outcomes (Biggs, 2014).

Ultimately, however, it is the assessment which will drive student learning (Gibbs, 2010). Our assessment methods signal to students what we consider important (Brown and Knight, 1994), what it is that we want them to learn, regardless of what the learning outcomes may say. This, in turn, influences how they spend their time and where they focus their efforts (Gibbs, 2010). It is essential, then, that the methods we choose for the assessment of learning are aligned with the outcomes and learning activities so that they actually assess what it is we want the students to learn, are mirrored in the learning activities, and provide students with an opportunity to best demonstrate the achievement of that learning (Biggs, 2003). This means that if it is intended that students will be able to “explain”, then they should be provided with opportunities to explain during the learning process, not just listen to the teacher doing the explaining. In other words, the teaching and learning activities should allow them to actually “do” what it is intended that they should be able to do, receive feedback on their efforts to allow them adjust in preparation for the summative assessment of their learning in which they are required to demonstrate that they have achieved the intended outcomes.

Throughout the teaching cycle, students are assessed formatively on an ongoing basis. Formative assessment activities take many forms such as quizzes, problems, drafts (formal) or more informal questions and discussions. These can be used by the teacher to monitor learning and adjust teaching accordingly (assessment for learning) or by students to monitor

their own learning and adjust learning accordingly (assessment as learning) (Earl and Katz, 2006). Feedback from teachers, peers and self is integral to this process.

The inclusion of feedback in the Constructive Alignment model recognises its importance for learning and the consequent necessity to ensure that it is an explicit element of the design of teaching. Thus, it should prompt teachers to ensure that learners have sufficient opportunities to receive and provide feedback throughout the learning process. While primarily aimed at monitoring learning and addressing deficiencies in knowledge and skills, this feedback can also allow both teachers and students to continually clarify the alignment of the other elements of the model. In this way, feedback can serve to monitor the coherence of all the elements in the model as shown in Figure 2.

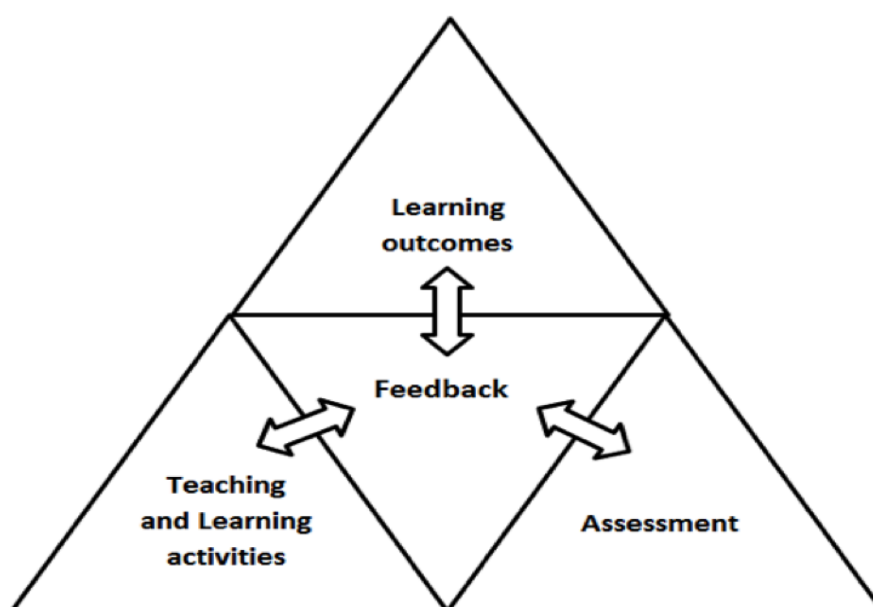


Figure 2. Constructive Alignment with Feedback

Coherence, as defined by Fullan and Quinn (2016), consists of more than simply connecting or aligning elements, it has the added dimension of a “shared depth of understanding about the purpose and nature of the work” (Fullan and Quinn, 2016, p. 7). Therefore, not only should feedback be explicitly included in the Constructive Alignment model but it may also be considered essential to maintaining the coherence between all of the elements and particularly so when it is dialogic in nature.

6. Conclusion

Feedback is a core element in the learning process. If it is to effectively identify and address gaps in learning, it should be aligned with learning outcomes, assessment criteria and learning activities. Furthermore, feedback has the potential to play an important role for teachers and students in clarifying, monitoring and maintaining the alignment between these three elements

of Biggs' model. Thus, to ensure coherence, it is guided by and, in turn, affects the other elements of the Constructive Alignment model. To continue the motoring analogy, if we consider that the student is on a learning journey in a module, constructive alignment involves firstly determining exactly what the destination is, then planning the route, travelling and continually monitoring the route, adjusting it where necessary, to ensure arrival at the final destination. It is in this cyclical process of monitoring and adjusting that feedback can play a key role in ensuring that the learning is achieved.

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