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Can communication models inform good feedback practice? A historical review.

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Abstract

A historical review of communication models demonstrates an evolution in understanding of communication progress, from linear modelling in its beginnings to a transactional and dynamic process in contemporary models. Given the importance of effective communication in higher education, and the equally important role of assessment feedback in student learning, can these communication models be used to inform good assessment feedback practice? This paper evaluates assessment feedback practice against four models of communication, using Nicol and Macfarlane-Dick's (2006) seven principles for good feedback practice in undergraduate education.

Introduction

The provision of constructive feedback, which both underpins the assessment process and informs students about their performance, is one of the most important principles of learning and teaching in higher education (Black & Wiliam, 1998; Boud & Associates, 2010). It is argued that the delivery of assessment feedback to students marks the beginning of a communication process within which it is essential to employ acknowledged, effective communication principles. These principles accommodate the acknowledgement and inclusion of students' agency in the learning process, thereby facilitating a transactional, co-constructed understanding between teacher and student, which enables students to self-regulate their learning. It is essential for teachers to avoid outmoded communication models when discussing feedback with students in order to avert student disengagement with the feedback process (Lea & Street, 1998, 2006; AUSSE, 2010; Bailey & Garner, 2010). Indeed, for teachers, an understanding of when and how students most effectively engage with feedback will enable them to design enhanced feedback communication models appropriate for their teaching and learning contexts.

In order to ascertain the most common form/s of assessment within USC, an analysis of the course outlines of all first year courses was conducted, with a view to create assessment learning opportunities for new students. It was found that the most common forms of assessment in first year courses at USC were the essay, report and annotated bibliography. This information was used to design a first semester first year course around supporting students to develop the skills to research and communicate in these assessment forms. Ergo, an analysis of the assessment feedback that students receive on extended writing submissions forms the basis for the discussion in this paper.

First, a deconstruction of four established communication models: Lasswell (1948); Shannon and Weaver (1949); Berlo (1960); and Eunson (2007) demonstrates how an understanding of communication has evolved since the late 1940s. Second, the mapping of Nicol and Macfarlane-Dick's (2006) seven principles against these four models establishes that most

assessment feedback is communicated via outdated communication models, which have been critiqued for their simplicity and lack of efficacy within communication theory. Third, recommendations that may inform the development of future assessment feedback models are discussed.

The evolution of communication models

The understanding of interpersonal communication has evolved and become problematised since Lasswell's seminal description of the communication process in 1948. Since that time, an analysis of communication models developed by Lasswell (1948), Shannon and Weaver (1949), Berlo (1960) and Eunson (2007) demonstrates an evolution of the understanding of interpersonal communication, from a linear transmission of meaning from sender to receiver, to a dynamic, complex and culturally contextualised transactional process. An analysis of the four commonly recognised communication models within the discipline of communication is a useful approach to identifying this evolution, and, moreover, allows for a consideration of assessment feedback processes in relation to these models.

Although the first models were relatively simplistic, they are instrumental in identifying how communication was understood. Lasswell's (1948) model of communication (Figure 1) is recognised as one of the earliest visual configurations of the interpersonal communication process, and provided the basis for the development of later models. Lasswell (1948) recognised that a 'channel', also known as 'the medium or means of sending messages' (Eunson, 2012, p. 18), was an integral aspect of the communication process. This channel or medium of communication would appear in most future models of communication. However, Lasswell's 1948 model had major limitations, as it did not account for aspects of the communication process that are now considered integral. Three of these limitations include: the failure to acknowledge the importance of communication context; the assumption that communication has to be verbalised in some format (spoken, written, recorded on film); and the assumption that communication is a linear (one-way) process.

Figure 1: Lasswell's model of communication (1948)

In the following year Shannon and Weaver (1949) produced their model of communication (Figure 2), commonly known as the sender-message-receiver (SMR) model, which has become one of the most recognised models in communication studies (cited in Eunson, 2012). The Shannon and Weaver model (1949) articulated that communication can start with an information source other than an individual. Thus, it accommodated electronic means of communication within the 'transmitter' and 'receiver' features. It is also the first model to identify the presence of 'noise' within communication, in the given context this is defined as 'anything that interferes with or distorts a message, or creates barriers to communication' (Eunson, 2012, p. 17).
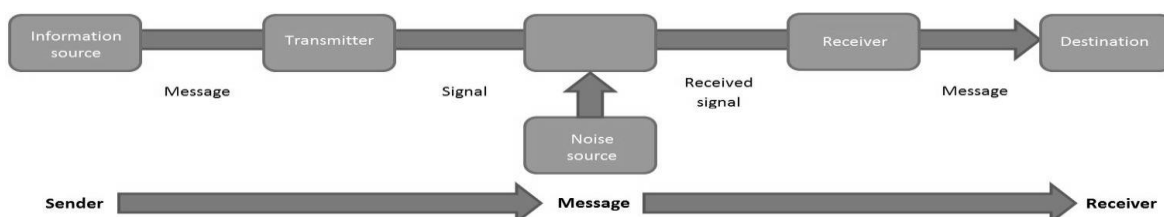

Figure 2: Shannon and Weaver's model of communication (1949)

Yet even with these added elements, Shannon and Weaver's model did not encompass many complexities of the communication process that were later identified. Consequently, Chandler (1994) identified some of the weaknesses of the Shannon and Weaver model as being:

- Its underlying 'transport' metaphor, in which communication is treated as the transmission of information by the sender to the receiver;
- Its conception of communication as a linear, one-way process, which ignores the provision of feedback by the receiver;
- Its presumption 'that all communication is intentional and transparent' (Eunson, 2012, p. 9) and a means to a predetermined end, rather than as a process for constructing meaning between the sender and receiver(s);
- In its treatment of communication as the transmission of a message, the surrounding situational, social, institutional, political, cultural and historical contexts are ignored, as is the relationship between and the social roles of the sender and receiver.

Thus, although Shannon and Weaver's model expanded on Lasswell's model, some limitations were retained, as it too identifies the communication process to be linear and transmissive and largely ignores the function of meaning and context.

Berlo's model (1960) incorporates additional features of communication such as content, elements, treatment, structure and code. For further understanding, these features require some definition and context. Elements and structure are commonly recognised in art as substance (elements) and form (structure), and 'in communication, having good ideas would comprise elements, while having good organization would comprise structure' (Eunson, 2012, p. 10). A Code involves elements and procedures, which through vocabulary, provide meaning (Berlo, 1960), whereas Content and Treatment 'express a purpose' and comprise 'the decisions which the communication source makes in selecting and arranging both content and codes' (Eunson, 2012, p. 10). However, while Berlo's is the first model to demonstrate the complex nature of communication, it still presents communication as a linear message transmission.
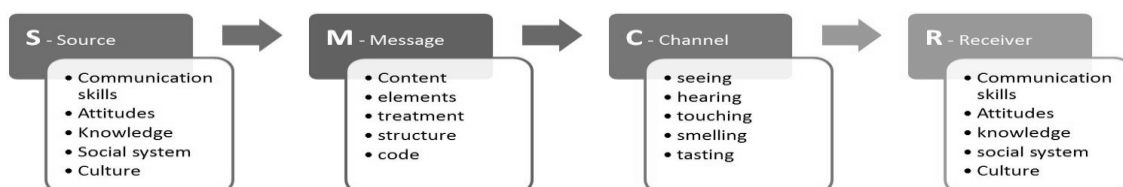
Figure 3: Berlo's model of communication (1960)

In contrast, Eunson's (2007) model of communication proposes three key considerations: (1) that the sender and receiver communication roles, as both encoders and decoders of information, are interchangeable; (2) that context is a central characteristic in communication; and (3) that feedback serves a specific function which results in the development of a dialogic, transactional communication cycle.
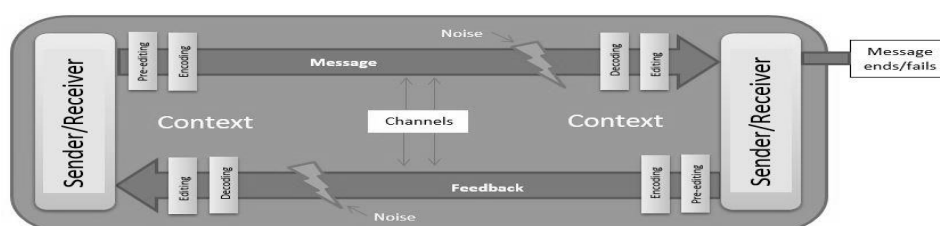
Figure 4: Eunson's model of communication (2007)

Communication models, feedback processes and principles for good feedback practice
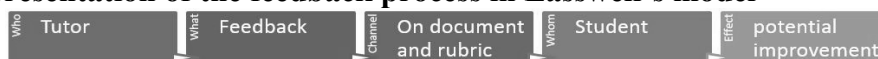
The evolution of communication models has been explored as having evolved from representing monologic, linear messages, to a comprehensive, transactional process that encompasses the shared construction of meaning (Eunson, 2012). Thus, an analysis of models using Nicol and Macfarlane-Dick's (2006) seven principles for good feedback practice in undergraduate education will be reported:

1. Helps clarify what good performance is (goals, criteria, expected standards);
2. Facilitates the development of self-assessment (reflection) in learning;
3. Delivers high quality information to students about their learning;
4. Encourages teacher and peer dialogue around learning;
5. Encourages positive motivational beliefs and self-esteem;
6. Provides opportunities to close the gap between current and desired performance;
7. Provides information to teachers that can be used to help shape the teaching (Nicol & Macfarlane-Dick, 2006, p. 7).

Tables 1-4 evaluate the four prominent communication models against Nicol & Macfarlane-Dick's (2006) seven principles for good feedback practice.

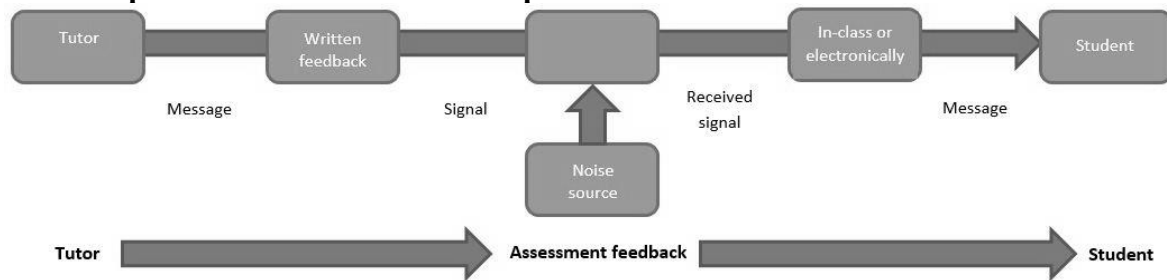| **Characteristics of Lasswell's model: Linear, assumes communication can only come from a person to a person, does not acknowledge noise or context.**	
Visual representation of the feedback process in Lasswell's model	

Principle	Evaluation of Lasswell's model
Clarify performance	Clarity can only be measured by the quality of comments provided to students through written feedback on the assessment item. Given the linear nature of this model, students do not have the opportunity to seek clarification/negotiate meaning.
Facilitate self-assessment	Self-assessment is again based on the quality of comments provided by the tutor and the student's ability and motivation to act on those comments. This model does not facilitate self-assessment since it has nothing to say about how students' ability to self-assess can be facilitated or checked.
Deliver learning information	Information is transmitted through comments but 'delivery' of the information to the student relies on the quality of the comments, the students' understanding of comments/teachers' codes and indeed their willingness to even read the comments.
Encourage dialogue	This model is linear and therefore does not accommodate a dialogic process.
Encourage self-esteem	This can be achieved through comments but relies on the quality of comments and the students' understanding of those comments.
Current and desired performance	This can be achieved through comments but again relies on the quality of comments and the students' understanding of those comments.
Informing teachers	This model is linear and therefore does not accommodate a dialogic process where questions can be asked and clarification sought which would enable teachers to better scaffold learning for individual students.

Table 1: Evaluation of Lasswell's model as a feedback model

Characteristics of Shannon and Weaver's model: Problematic with metaphors, linear, presumes communication is intentional and transparent, does not acknowledge context.

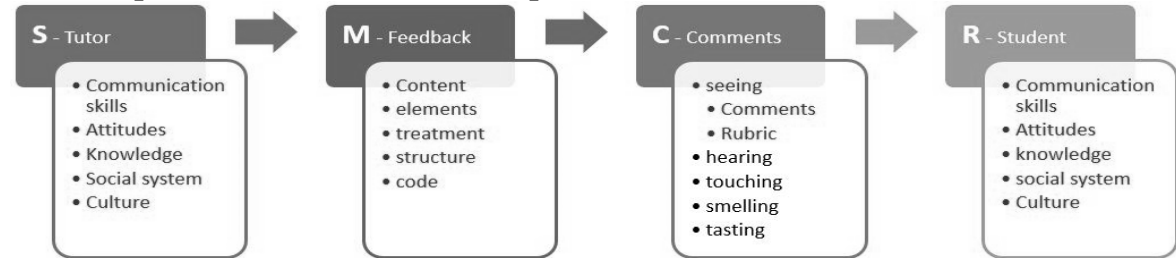**Visual representation of the feedback process in Shannon and Weaver's model**

Principle	Evaluation of Shannon and Weaver's model
Clarify performance	Clarity can only be measured by the quality of comments provided to students through written feedback on the assessment item. Given the linear nature of this model, students do not have the opportunity to seek clarification. A deliberate application of the concept of 'noise' may help the teacher to focus on the most crucial aspects for improvement, understanding that students may become overwhelmed by commentary on too many areas.
Facilitate self-assessment	Self-assessment is based on the quality of comments provided by the tutor. If the student does not understand comments then they do not benefit from the process according to this model.
Deliver learning information	This can be achieved through comments but again relies on the quality of the comments and the students' understanding of those comments.
Encourage dialogue	This model is linear and therefore does not accommodate a dialogue process.
Encourage self-esteem	This can be achieved through comments but relies on the quality of the comments and the students' understanding of those comments. The concept of 'noise' may be applied here by the teacher to realise that the tone of the comments needs to be encouraging in order not to create mental and affective 'noise' for the student through overwhelm and demotivation.
Current and desired performance	This can be achieved through comments but relies on the quality of the comments and the students' understanding of those comments.
Informing teachers	This model is linear and therefore does not accommodate a dialogue process/negotiate meaning.

Table 2: Evaluation of Shannon and Weaver's model as a feedback model

Characteristics of Berlo's model: humans occupy sender and receiver roles and acknowledge their communication skills, attitudes, knowledge, social systems and culture. The message is recognised as having content, elements, treatments, structure and code and the channel is seen as one or more of the five senses.

**Visual representation of the feedback process in Berlo's model**

S - Tutor	**M** - Feedback	**C** - Comments	**R** - Student

• Communication skills
• Attitudes
• Knowledge
• Social system
• Culture
	• Content
	• elements
	• treatment
	• structure
	• code
		• seeing
		  • Comments
		  • Rubric
		• hearing
		• touching
		• smelling
		• tasting
			• Communication skills
			• Attitudes
			• knowledge
			• social system
			• Culture

Principle	Evaluation of Berlo's model
Clarify performance	Clarity can only be measured by the quality of comments provided to students through written feedback on the assessment item. Given the linear nature of this model, students do not have the opportunity to seek clarification/negotiate meaning. By acknowledging diversity of attitudes, knowledge, social systems and culture and the context of learning, teachers may have more awareness of how to tailor their comments to better support and motivate individual learners.
Facilitate self-assessment	This model begins to acknowledge the context of communication through communication skills, attitudes, knowledge, social systems and culture which support self-assessment. It also specifies that the message contains content, elements, treatment, structure and code which provide much more detail for the student.
Deliver learning information	This can be achieved through comments but again relies on the quality of the comments and the students' understanding of those comments.
Encourage dialogue	This model is linear and therefore does not accommodate a dialogue process.
Encourage self-esteem	This can be achieved through comments but again relies on the quality of the comments (which are provided in more detail through this model) and the students' understanding of those comments. By acknowledging diversity of attitudes, knowledge, social systems and culture, teachers may have more awareness of how to tailor their comments to better support and motivate individual learners.
Current and desired performance	This can be achieved through comments (which are provided in more detail through this model) but again relies on the quality of the comments and the students' understanding of those comments.
Informing teachers	This model is linear and therefore does not accommodate a dialogue process.

Table 3: Evaluation of Berlo's model as a feedback model

Characteristics of Eunson's model: acknowledges the role of context in all communication processes, is seen as a two-way transactional process, understands that individuals edit and encode messages using their own context, and acknowledges that noise impacts the process.

Visual representation of the feedback process in Eunson's model
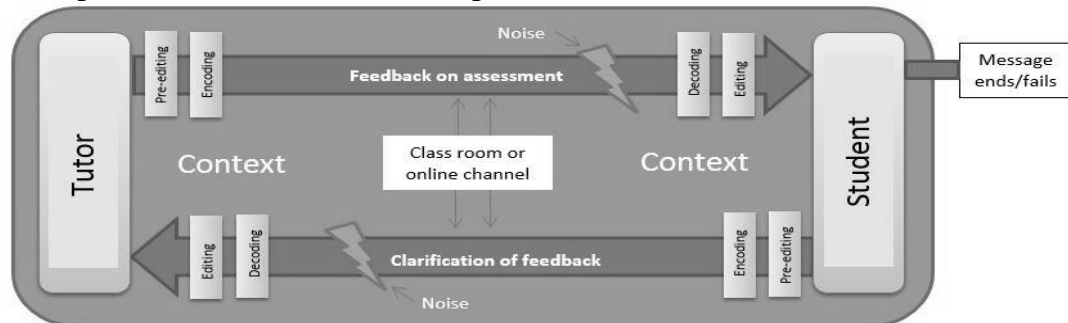
Principle	Evaluation of Eunson's model
Clarify performance	This model acknowledges a two-way communication process where students have the opportunity to seek clarity through dialogue. The dialogue can be carried out through a number of channels (electronic, face-to-face etc.).
Facilitate self-assessment	This model accommodates the facilitation of self-assessment because the student can seek clarity if they do not understand the written feedback through dialogue.
Deliver learning information	This model delivers information about learning because the student can seek clarity through dialogue, if they do not understand written feedback.
Encourage dialogue	This model provides the opportunity for dialogue to take place.
Encourage self-esteem	This model accommodates the creation of student self-esteem because teachers can provide clarity and encouragement by employing more communication elements (verbal and nonverbal) within a feedback dialogue.
Current and desired performance	Through further dialogue, the teacher can clarify performance to date and plan future goals *with* students.
Informing teachers	The two-way process means the feedback process becomes transactional and therefore teachers can benefit through greater understanding of the student experience and reflect on their own practice.

Table 4: Evaluation of Eunson's model as a feedback model

The importance of considering assessment feedback as a process of communication

Higgins, Hartley and Skelton (2002, p. 271) argue that for 'feedback to become an integral part of the learning process' it needs to be understood as a 'process of communication'. They suggest that twentieth century linear models of communication are moribund and should not be used as the basis of assessment feedback. In particular, they identify external influences as a hindrance to the transfer of intended meaning, and advocate for the adoption of twenty-first century models and principles of communication as the basis for effective feedback processes. Additionally, a focus on twenty-first century models of communication, and the internal dynamics of feedback as a process of communication, reveals that factors such as emotion,

power, authority, subjectivity and discourse impact on the way feedback is regarded, understood and used (Higgins, Hartley, & Skelton, 2002, p. 272).

This contrasts with Nicol and Macfarlane-Dick's (2006, p. 3) findings that feedback is generally viewed as a 'transmission process', where teachers 'transmit' feedback messages to students, assuming their comments will be 'easily decoded and translated into action'. In addition, 'feedback as telling' (Nicol, 2010) undermines the benefits of constructivist principles and practices of learning. Constructivism is a theoretical paradigm that identifies that humans develop knowledge and meaning from an interaction between their experiences and their ideas. That is, humans develop their own learning. Constructivism is not a specific pedagogy, rather a conceptual framework under which many different pedagogical approaches sit. Indeed, co-constructive and dialogic approaches to teaching and learning are considered to be constructivist. Constructivist teaching and learning, where students co-construct their learning through dialogues with peers or teachers, is recognised as having a positive effect on students' learning experience (Vygotsky, 1978; Holmes, Tangney, FitzGibbon, Savage, & Meehan, 2001). Consequently, the scholarship around students as co-producers of knowledge has revealed that participatory and co-constructed approaches to learning can lead to enhanced student enjoyment, motivation, and learning (Kotzé & du Plessis, 2003).

In particular, viewing feedback as a cognitive process that focuses on the 'transfer of information' ignores the impact of feedback comments on students' motivation and beliefs (Nicol & Macfarlane-Dick, 2006, p. 2001), and thus fails to foster student self-regulation. Finally, Nicol and Macfarlane-Dick (2006) contend that feedback needs to be understood and internalised by students in order to contribute to deep learning and improvement or 'self-regulated learning'. In order for this to occur, feedback needs to be conceptualised as 'dialogue rather than as information transmission' (Nicol & Macfarlane-Dick, 2006, p. 11), so that students become active participants in constructing meaning from feedback and then internalising this meaning for self-regulation (Nicol, 2010). Indeed, Beaumont, O'Doherty and Shannon (2011) suggested that effective assessment feedback should be structured as a dialogue feedback cycle, ascribing student dissatisfaction with assessment feedback in Higher Education to a reliance on feedback that is presented as a 'a post-submission, summative event' (Beaumont, O'Doherty, & Shannon, 2011, p. 19). Using twenty-first century communication models as a basis for feedback communication can accommodate context and dialogue, generate a feedback cycle between student and teacher, foster self-regulated learning and encourage teachers to further develop their practice.

Conclusion

Nicol (2010) suggests that most assessment feedback practices focus on 'what the teacher does/writes' or the way feedback is formulated, a practice which conforms to communication models that have been critiqued and replaced as they ignore the co-constructed nature of communication and learning. Yet using a student focus within a constructivist paradigm of learning centres attention on 'what the students' do', constructs students as active agents in meaning-making, who use feedback for self-regulation and future learning (Nicol, 2010). Conceptualising feedback as dialogue using twenty-first century models of communication accommodates the interchange of senders and receivers, encoding, decoding, noise and context, and the role these aspects play in mutually understood constructions of meaning (Eunson, 2012), which vastly improves the assessment experience and outcome for students. Therefore, current and future constructivist models that borrow heavily from Eunson's communication

model can achieve closer alignment with Nicol and Macfarlane-Dick's (2006) seven principles for good feedback practice. This alignment may result in greater student performance and satisfaction, as well as encourage teacher self-reflection of practice, improving assessment experience and outcomes.

References

Australasian Survey of Student Engagement (AUSSE). (2010). *Doing more for learning: Enhancing engagement and outcomes. Australasian student engagement report.* Retrieved from http://research.acer.edu.au/ausse/12/

Bailey, R., & Garner, M. (2010). Is the feedback in higher education assessment worth the paper it is written on? Teachers' reflections on their practices. *Teaching in Higher Education, 15*(2), 187-198. doi: 10.1080/13562511003620019

Berlo, D. (1960). *The process of communication: An introduction to theory and practice.* New York, NY: Holt Rinehart and Winston.

Beaumont, C., O'Doherty, M., & Shannon, L. (2011). Reconceptualising assessment feedback: A key to improving student learning? *Studies in Higher Education, 36*(6), 671-687. doi: 10.1080/03075071003731135

Black, P., & Wiliam, D. (1998). Assessment and Classroom Learning. *Assessment in Education, 5,* 7-69. doi: 10.1080/0969595980050102

Boud, D., & Associates. (2010). *Assessment 2020: Seven propositions for assessment reform in higher education.* Sydney, NSW: Australian Learning and Teaching Council.

Chandler, D. (1994). The transmission model of communication. Retrieved from http://www.aber.ac.uk/media/Documents/short/trans.html#D

Eunson, B. (2012). *Communicating in the 21st century* (3rd ed.). Milton, Qld: John Wiley & Sons.

Eunson, B. (2007). *Communication models: can pre-editing and post-editing of messages help improve basis models.* Paper presented at the Australian and New Zealand Communication Association Annual Conference, Melbourne, Australia.

Higgins, R., Hartley, P., & Skelton, A. (2002). The Conscientious Consumer: Reconsidering the role of assessment feedback in student learning. *Studies in Higher Education, 27*(1), 53-64. doi: 10.1080/03075070120099368

Holmes, B., Tangney, B., FitzGibbon, A., Savage, T., & Meehan, S. (2001). Communal constructivism: students constructing learning for as well as with others. *Proceedings of SITE*, Florida 2001.

Kotzé, T.G., & du Plessis, P.J. (2003). Students as "co-producers" of education: A proposed model of student socialisation and participation at tertiary institutions. *Quality Assurance in Education*, *11*(4), 186-201. doi: 10.1108/09684880310501377

Lasswell, H. (1948). The structure and function of communication in society. In L. Bryson (Ed.), *The communication of ideas* (pp. 37-51). New York, NY: Harper & Row/Institute for religious and social studies.

Lea, M.R., & Street, B.V. (1998). Student writing in higher education: an academic literacies approach. *Studies in Higher Education, 23*(2), 157-172. doi: 10.1080/03075079812331380364

Lea, M.R., & Street, B. (2006). The "academic literacies" model: Theory and applications. *Theory into Practice*, *45*(4), 368-377. doi: 10.1207/s15430421tip4504_11

Nicol, D. (2010). From monologue to dialogue: Improving written feedback processes in mass higher education. *Assessment & Evaluation in Higher Education, 35*(5), 501-517. doi: 10.1080/02602931003786559

Nicol, D.J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, *31*(2), 199-218. doi: 10.1080/03075070600572090

Shannon, C., & Weaver, W. (1949). *The mathematical theory of communication.* Chicago, IL: University of Illinois Press.

Vygotsky, L.S. (1978). *Mind in society.* Cambridge, UK: Harvard University Press.