Journal of Academic Language & Learning
Vol. 8, No. 3, 2014, A91-A100. ISSN 1835-5196

AALL
Association for Academic Language and Learning

Scaffolding theory: High challenge, high support in Academic Language and Learning (ALL) contexts

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(Received 9 May 2013; Published online 7 September, 2014)

Scaffolding is a term frequently used by tertiary educators and especially in the field of Academic Language and Learning (ALL), but it is often not clearly understood or adequately theorised. It originates from Vygotsky's (1978) theories of social learning: the view that learning takes place in social environments through interaction with peers and more knowledgeable others. Although the term was introduced by Woods, Bruner and Ross (1976), it has since been refined by a number of theorists including Mariani (1997) who defines scaffolding as "high challenge: high support". Based on this definition, we argue that scaffolding in ALL contexts entails a very specific kind of support which works with students' "zones of proximal development" (ZPD) (Vygotsky, 1978) enabling them to achieve far beyond what they could accomplish individually. Using Hammond and Gibbons' (2005) work, which identifies two aspects of scaffolding, "designed-in" and "contingent", we examine how the theory of scaffolding can be applied in ALL work with particular reference to in-discipline contexts. "Designed-in" scaffolding involves carefully sequenced and structured sub-tasks leading to the completion of the major task, while "contingent" scaffolding occurs in the moment-to-moment interaction between teacher and student. Using examples from the literature, we discuss how both types of scaffolding can be invoked in the in-discipline work of ALL practitioners to enable students to make leaps forward in their ability to think critically and to participate in the discourse communities which they aspire to join.

Key words: scaffolding, tertiary learning, academic literacy, ZPD.

1. Introduction

The term 'scaffolding' is common throughout current literature on pedagogy. All too often, however, the term is used loosely as a synonym for "teaching" or, in many ALL (Academic Language and Learning) contexts, simply for "support". This paper will attempt to re-sharpen the focus on scaffolding, and demonstrate how it entails a very specific kind of support which does not simply teach students the technical skills necessary to complete their assignments, but which stimulates a critical and independent orientation to meaning-making within the context of their disciplines, and assists students to achieve well beyond their current "zone of capability" (Wass, Harland, & Mercer, 2011). We maintain that it is the *nature* of support that is crucial to

the notion of scaffolding. Support is valuable to students only when it leads to development, and ultimately, to student autonomy. As Axford, Harders, and Wise (2009) argue, "in the context of teaching and learning, support is necessary but insufficient" (p. 1). Support alone can create dependency, which can inhibit a student's participation in the practices that universities reward. This is where the metaphor of scaffolding can be productive, conjuring up the idea of a building under construction. With the help of scaffolding, the student can construct knowledge and perform tasks well beyond their current capacity. As the student gains confidence and ability, the scaffolding can be gradually removed. Finally, the construction stands firm; and the student is able to perform the task unassisted and is now ready to progress to more advanced tasks.

In this paper, we explain the roots of scaffolding theory in sociocultural understandings of learning, including Vygotsky's (1978) notion of the Zone of Proximal Development (ZPD) and Mariani's (1997) definition of scaffolding as "high challenge, high support". We will discuss the specific view of Scaffolding Literacy proposed by Axford et al. (2009), and the ways in which this pedagogy has been introduced to higher education; and we will use the notion of "designed-in" and "contingent scaffolding" as proposed by Hammond and Gibbons (2005) to explain how scaffolding has been applied in the work of ALL practitioners in in-discipline contexts. We will argue that scaffolding involves a very specific kind of teaching, working from students' current stage of development and boosting their learning far forward into their ZPD by offering both high challenge and high support as they learn to engage in the academic literacies of their discipline.

2. A sociocultural approach to learning

The notion of scaffolding as a metaphor for teaching-learning was first proposed by Woods, Bruner, and Ross (1976) based on the work of Vygotsky (1978, 1987). Vygotsky maintained that learning takes place in sociohistorical contexts as we engage with peers and more experienced others. In other words, learning is a social process rather than an individual one. In particular, the theory of scaffolding depends on Vygotksy's conceptualisation of the 'Zone of Proximal Development'. There is debate among scholars about whether the ZPD can be conceived of as an attribute of the learner, or as a co-construction between the teacher and the students (Hammond, 2001, p. 10). However, there is general agreement that Vygotsky was interested not so much in what a learner could do, as in what potential the learner had for development; not what the learner could do unassisted, but in what the learner could achieve with assistance from others. He described the ZPD as:

> the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1978, p. 86)

Vygotsky characterises the ZPD as the "buds" of learning rather than the fruits (1978, pp. 86–87). Understanding the ZPD allows us to focus on the trajectory of student learning and development: it enables us to work from where students are now, and to boost them forwards to where they could be in the future. In this way, Vygotsky argued, teaching should always be in advance of development:

> Instruction is only useful when it moves ahead of development. When it does, it impels or awakens a whole series of functions that are in a stage of maturation lying in the zone of proximal development. (Vygotsky, 1987, p. 212)

The student's ZPD, then, is their potential for new learning: the fertile zone in which they are ready to participate in learning. By recognising and understanding this potential, teachers are able to set up and guide students into new opportunities to learn. The ZPD leads to the notion of 'assisted performance'. It can be imagined as a shared space in which the student operates in collaboration with others to tackle tasks. It is through discussion and "puzzling through" (Donato, 2000, p. 31) tasks with peers, tutors and lecturers that students build their capacity to eventually undertake similar tasks unaided. Thus, although scaffolding in the ZPD involves shared and supportive activity, its ultimate objective is independence.

However, as Lantolf and Thorne (2006, p. 264) point out, not all assistance is necessarily supportive of development: assistance can also debilitate and disempower. They suggest that a 'skills' interpretation of the ZPD which reduces and simplifies learning to a lock-step process can have a constraining effect on student development. Uncontested 'rules' about academic writing, for example, may assist students in the immediate instance, but may inhibit critical understandings of academic literacy which will enable them to make subtle decisions about writing in the future. Teacher support should make the task accessible (rather than simplifying the task); emphasise engagement and participation (rather than task completion); accept partially correct answers (rather than perfection); and make the task explicit so as to avoid pitfalls (rather than waiting for the student to make mistakes and then correcting them). Scaffolding provides a *means* to enable students to complete the tasks valued by the academy; it enables learners to be task-focused in their learning – not *ends*-focused. That is, the activity of completing the task is constructed by both students and teachers as a learning opportunity, rather than as a task-fulfilment activity. A crucial aspect of scaffolding, van Lier (2004) and Lantolf and Thorne (2006) point out, is the notion of agency in learning. The scaffolding metaphor emphasises that students should be able to stand alone as a result of the teaching-learning process – becoming autonomous rather than reliant on peer and teacher support. As independent learners they will be able to transfer their learning to other related tasks and will be ready to tackle the next level of scaffolded learning.

Mariani (1997) describes the need for both "high challenge" and "high support" in scaffolding student learning (see Figure 1). He proposes that learners need to be challenged with tasks which are well beyond their present individual capacity: "high challenge". Low challenge tasks will result in busy work, and/or bored students, while high challenge tasks can be powerfully motivating, and will provide a platform for students to make strides forward in their learning, reaching far into their ZPD. To successfully complete high challenge tasks, however, students also need "high support". If students feel that the task is impossible or unreasonable, they may become frustrated, lose confidence, lose interest, and possibly resort to "short-cut" strategies including various forms of plagiarism. Conversely, low challenge tasks may be perceived by students as irrelevant and uninteresting, leading to feelings of boredom and futility. Alternatively, where numerous sub-tasks are instituted as support, these may generate large quantities of "busy work". Students may feel that the task has been "dumbed down" and has become pointless.

High challenge **Low support** >>Frustration >>Short cuts	**High challenge** **High support** >>Engagement >>Transformation
Low challenge **Low support** >>Pointlessness >>Boredom	**Low challenge** **High support** >>Busy work >>Dumbing down

Figure 1. A model of scaffolding as "High challenge, high support" (adapted from Mariani, 1997).

A crucial aspect of Vygotsky's scaffolding theory is the notion that learning takes place in social contexts. As students talk through the task with others, they build up the capacity to deal with similar problems unaided in the future. For this reason, scaffolding is sometimes realised in a three-stage process:

1. Teacher and students work together to solve a problem.
2. Students work together to solve a similar problem.
3. Individual students solve the problem unassisted.

This is the approach used, for example, by Palincsar and Brown (1984) in their "reciprocal reading" pedagogy. This technique involves a sequence of stages through which students interact with a text. The process is initially modelled by the teacher, and then handed over to autonomous groups of students who collaboratively pose questions, predict and discuss content, and co-construct a summary. Finally, students work individually to create their own summaries. In ALL contexts, the reciprocal reading pedagogy would be extended to include not just summarising of high challenge texts, but reflective critique.

Axford et al. (2009) and others have developed a specific approach to scaffolding literacy for schools which also has relevance for the tertiary sector. This approach to scaffolding entails a cycle of text deconstruction, joint construction and individual reconstruction of new texts aimed at making the structure and purpose of texts visible to students along with the development of content knowledge so that they can use this knowledge to create increasingly complex and sophisticated texts of their own. Rose, Gray and Cowey (1998) explain that in schools, this approach to scaffolding entails reversing the typical literacy teaching sequence. Instead of beginning with personal writing, drawing on students' oral language skills and trying to advance from there, the Scaffolding Literacy approach begins with reading in order to "provide a literate context to develop writing" (Rose et al., 1998, p. 8). The authors go on to explain that this approach means teachers

> ...[do not] begin with lower level texts [...] in the belief that these will be easier to read... Instead, [they] begin with, and support learners to read, higher level texts which are capable of providing access to important literate language features. Once a learner can read such a text fluently, it then becomes a powerful resource to develop the academic-literate writing skills they need in order to progress. (Rose et al., 1998, p. 8)

In the tertiary sector, reading is rarely foregrounded (Wilson, Devereux, Macken-Horarik, & Trimingham-Jack, 2004), but if students arrive at university unable to read complex academic texts in their discipline critically and effectively, they are unlikely to have the linguistic resources required to produce the sophisticated written texts valued in higher education. The Scaffolding Literacy Cycle, based on the pedagogy outlined above, was used by Rose, Lui-Chivizhe, and Smith (2003) in a university preparation program. Their approach to building students' ability to read involved a three stage process. First, students' background knowledge of the academic field was developed through an 'orientation' stage where the content was discussed and the structure of the text was previewed. Once the students knew what to expect, students and teacher together read the text in detail, discussing both the language and content. As the students teased out the meanings of the text, they were able to elaborate on these ideas and interpret and reflect on the author's meanings. Teacher and students together made notes from the text and used these to create new texts in response to their reading. Finally, individual students created their own texts. This approach embodies the high challenge, high support pedagogy proposed by Mariani (1997) above. Rather than 'dumbing down' the curriculum by providing 'easy' reading materials, the students were 'scaffolded up' in a manner which enabled them to engage with complex academic texts which then became a resource for students' own writing.

3. Designed-in and contingent support in scaffolded learning environments

Hammond and Gibbons (2005) have contributed further to an understanding of the nature of scaffolding by identifying two kinds of support: designed-in and contingent support. Designed-in scaffolding occurs largely through the planned selection and sequencing of sub-tasks within the context of a major, high-challenge task. Contingent scaffolding, on the other hand, involves teachers' on-the-spot interaction with students both in the classroom and/or online, and in

feedback on their work. Contingent scaffolding can be provided in group settings to the class as a whole, or to specific individuals, to scaffold students' contributions as well as to develop their capacity to evaluate their learning.

As academics are all too aware, assessment tasks are a powerful driver of student learning, and thus afford an ideal framework for designed-in scaffolding. In Mariani's (1997) terms, tasks should be designed to challenge students, affording opportunities for all learners to be stretched beyond what they currently can achieve (high challenge). Challenging tasks, however, need to be accompanied by commensurate support. The selection and sequencing of tasks and sub-tasks depends on teachers' understanding of students' current knowledge and capacity, as does the selection of semiotic tools which will challenge and yet support students' development. Hammond and Gibbons (2005) suggest that "message abundancy" – the use of a variety of semiotic systems – is an important aspect of this selection process during task design. Academics have an important role in guiding their students towards texts (including multimedia texts) which will enhance their ability to fulfil the required assessment tasks. O'Donovan, Price, and Rust (2004) also highlight the importance of "managing student expectations" through effective scaffolding of the assessment process. Students, they argue, benefit from having the rationale for assessment tasks clearly and explicitly outlined so that they develop an understanding of not only what the marker expects and what the assessment criteria mean, but also how they will benefit from undertaking the required task. This "designed in" support helps to encourage student motivation to persevere with demanding and complex tasks.

Contingent scaffolding, in contrast, is not planned. It occurs in the moment-to-moment interaction between teacher and students, both in teacher talk, and importantly in teacher (and peer) responses to students' voices. Hence, opportunities for students to participate interactively in tutorials are an essential aspect of contingent scaffolding. Hammond and Gibbons (2005) suggest that contingent scaffolding includes making explicit links to students' prior knowledge, but also pointing forward towards new horizons. It includes summing up and making meta-comments to draw concepts together. Teacher talk can appropriate and recast students' comments, lifting them to a more academic level of discourse, and using metalanguage to recap and reinforce learning. Teacher questions are particularly important as they can lead students to deeper understanding through cued elicitation and through "increasing prospectiveness" (Hammond & Gibbons, 2005, p. 23), that is, extending and opening up opportunities for further thinking. Such questions can challenge students to think differently about their subject, opening up new and transformative vistas. Such teacher talk is what van Lier (2004, p.11), after Wittgenstein, talks about as "sowing" rather than "reaping": teacher talk which affords opportunities for learning, rather than testing what students already know. Wass et al. (2011) in a study of Zoology students found that teacher talk was particularly significant in developing students' critical thinking ability: challenging conversations with their lecturers pushed them forward into their ZPD. Smaller class sizes in the second and third year, as well as opportunities for interaction during field trips and research training exercises, enabled lecturers to make more explicit links with the students' individual ZCD (Zone of Current Development) (Wass et al., 2011) and to encourage higher-order thinking.

A second crucial opportunity for contingent scaffolding is through feedback on assessment. Students value specific, individual feedback that engages them in dialogue with their marker, what Lillis (2001) has called "rich dialogic feedback". In this approach, feedback is viewed as part of a relational process rather than as a product or "gift", a one-way communication dispensed from teacher to learner (Price, Uandaley, Millar, & O'Donovan, 2010). A dialogic approach involves some form of interaction between the learner and the teacher where meanings are clarified and discussed, either face-to-face, or through a written conversation with the student's text. Rich dialogic feedback engages students in deep, productive learning rather than simply correcting surface errors. It positions students as agents rather than subjects in the learning process. In this way, it contributes to boosting students into the ZPD, through explicit instruction to help them form appropriate judgments about their performance (Poehner, 2012). Although it may be impossible with large classes to offer detailed, individual, face-to-face interaction for every assessment task, teaching staff can find creative ways to provide

opportunities for students to talk about how to use feedback productively to enhance learning. For example, some staff meet individually with all students who have failed a particular assessment task, to talk through feedback face-to-face, and to discuss with students how to set themselves up for success (Devereux & Wilson, 2013).

Poehner (2012), who has used a Vygotskian perspective of the ZPD to scaffold students' capacity to self-assess performance, suggests that just as novices need to be supported by a more knowledgeable other in order to learn new and complex material, they will need scaffolding in order to successfully self-evaluate learning outcomes. Poehner identifies three features of learning: orientation, execution and control (planning, doing and evaluation) (p. 613). He explains that students need to be able to plan a task, do it, and then evaluate how effectively they have done it. The evaluation may reorient the individual to develop a new plan, or to modify the previous one. Beginners, he suggests, may be able to develop the plan and take action, but without the help of a more experienced other, they may not be able to evaluate how successfully they have executed the task. In this model, evaluating performance is *part of performance* itself and learner development is about shifting responsibility for making such judgements from others to self. Poehner (2012) suggests that this model of learning has profound implications for pedagogy as "instructional practices that focus solely on prompting learners' independent execution of tasks and where any sort of evaluation rests with the teacher risks overlooking important features of learner development" (p. 614).

4. The contribution of ALL practitioners to scaffolded learning

The theory of scaffolding has deep and wide implications for ALL practitioners in their endeavour to help students participate more fully in academic literacies. In this paper we focus in particular on collaboration between ALL lecturers and their in-discipline colleagues as they work together to create high challenge/high support learning environments. Other papers have looked in more detail at the role of scaffolding in individual consultations (for example, Huijser, Kimmins, & Galligan, 2008; Weissberg, 2006; Wilson, Collins, Couchman, & Li, 2011) and in postgraduate consultations (Thompson, Morton, & Storch, 2012; Woodward-Kron, 2007).

4.1. The contribution of ALL practitioners to designed-in scaffolding

It is generally agreed that collaboration between ALL practitioners and their counterparts in the disciplines is the most effective way of supporting students' academic literacy development (Australian Universities Quality Agency, 2009, p. 8). Where such embedding is possible, ALL staff can make a major contribution in terms of task design, to ensure that tasks are sufficiently challenging, but also suffused with built-in support such as explicit task instructions, clearly defined marking rubrics, and other support tools which will enable students to complete the task successfully, pre-empting possible pitfalls and empowering students with the necessary language and learning practices. Collaboration between discipline staff and ALL staff, as outsiders to the discipline, can help academics to see their task design through the eyes of a novice.

As argued above, an important, and often over-looked, aspect of academic literacy development is the learning-teaching of academic reading practices. Many students arrive at university with little experience of reading academic texts. Devereux and Wilson (2008) document a typical first year response from one student who was "dumbfounded at first" by the quantity and complexity of the reading she was expected to undertake. ALL practitioners can work with their counterparts in the disciplines to design activities into the course which scaffold students' reading. At one level, students can benefit from explicit instruction in reading strategies, such as skimming and scanning, identifying main ideas and taking notes. However, the skills approach to academic literacy, as Lantolf and Thorne (2006) point out, can limit students' development of a deeper engagement with the voices embodied in the text. Importantly, students need support to develop a critical orientation to text, understanding how they can use texts for their own academic purposes by developing their own stance in relation to the text. Scaffolded reading activities can enable students to develop meaning-making skills to interrogate a text in order to

understand *why* the author has constructed it in a certain way and thus learn to uncover *layers* of meaning in the texts valued in the discourse community they aspire to join. This involves reading not only for specific content information, but also for argument, and for where authors place themselves within their community of practice. Students learn to question which arguments, from the range of choices available, has this particular author chosen to use in this particular text and for what purpose? The university student not only needs to understand the words on the page, but to read 'behind the page' and 'between the lines'. It is through developing these practices that a student develops the confidence to become part of a learning community, and able to situate themselves within it. Appropriate scaffolding can let the students "in" on how to make meaning from the text at these different levels (Christie, 2006). One approach to the design of productive scaffolding of critical reading practices is to develop 'reading scaffolds' which guide students into reading effectively and critically and encourage them to develop productive reading practices. We have included an example of such a reading scaffold in another paper (Devereux & Wilson, 2013).

If ALL practitioners are able to participate in the design phase of a unit, they can also assist in planning (and perhaps later delivering) learning opportunities, including lectures, workshops, tutorials and online activities, which scaffold students' development of academic writing practices and enable them to understand more deeply how knowledge is constructed and represented in their discourse community. Christie (2013) maintains that this knowledge of the language and meaning making systems of the discourse community must be made explicitly available to learners and that when staff teach writing, texts must be analysed in terms of meanings, language patterns and their overall structure. ALL staff can collaborate with in-discipline lecturers to design activities which make this information visible. It can be helpful to students, for example, to set up an opportunity to analyse and assess model texts written by other students. Students do not often have opportunities to see what other student writing looks like (Sadler, 2010), and showing them examples of quality writing can be profoundly helpful to the development of their understanding of the literacy practices valued in their discipline. Evaluating the work of their peers can also help students to develop the capacity to self-evaluate their own work (Sadler, 2010). Analysing how other students have approached a particular task after the marking and return of assessment tasks can also be beneficial in this regard.

The ALL literature contains a number of excellent examples of designed-in scaffolding as a result of collaboration between ALL practitioners and faculty in the disciplines. An example of such collaboration is presented by Docherty, Tse, Forman, and McKenzie (2010). In a large Macroeconomics course, ALL advisers worked with economics lecturers to redesign the largely multiple choice assessment in the unit in order to incorporate two written assignments. They believed that this would not only help to develop students' literacy abilities but also help them to better understand the economics concepts. The design allowed students to apply their new learning from the first assignment in producing the second. The team collaboratively developed explicit marking criteria and feedback mechanisms and a model assignment was made available online. In addition, extra workshops were offered focussing on the nature and language of argument in macroeconomics. Included in their series of workshops was one in which students and ALL lecturers worked together to tackle one of the more complex readings of the subject, using a process similar to that advocated by Rose et al. (2003) described in the previous section. As Docherty et al. (2010) point out, evaluation of such a collaboration is difficult; however, the students who attended the workshops performed substantially better than those who did not. In follow-up interviews, students reported that they found the marking criteria and sample assignment to be particularly useful.

4.2. The contribution of ALL practitioners to contingent scaffolding

Contingent scaffolding occurs in interaction between members of the learning community. The design of the unit, therefore, also needs to factor in plenty of opportunities for students to voice their understandings and questions in interaction with peers and lecturers. ALL practitioners can make an important contribution to such interaction if they are invited to do so by their in-discipline counterparts. An example of close collaboration between lecturers in Management

and ALL practitioners is given by Kennelly, Maldoni, and Davies (2010). The results of their work over a number of years show that embedded small group activities, which provided plenty of opportunity for interaction between literacy specialists and students, were particularly helpful in building students' literacy practices. The authors also emphasise the value of team-teaching by ALL practitioners and discipline lecturers as this enhanced the dynamic, interactive nature of the sessions. ALL practitioners need to be ready to respond to students' comments and questions in ways which "increase prospectiveness" – that lead to further productive sequences of meaning, drawing students' voices more deeply into the construction of understandings of disciplinary discourse (Hammond & Gibbons, 2005, p. 24-25). Some students may consider that they already know how to write essays, having been drilled in essay-writing at high school, and may be resistant to learning the new discourses of academia. So it is essential for ALL lecturers to recognise and value prior knowledge (what Wass et al., 2011 call the ZCD: Zone of Current Development), while also awakening students' interest in the value of the new discourses they must engage with and how they differ from texts valued at school. Other students may be anxious about their lack of experience with academic discourse, and ALL lecturers need to be sensitive in building the confidence of such students. Much has been written about the typical IRE (Initiate-Respond-Evaluate) sequence of teacher-student exchanges. Traditionally the third phase is simply an evaluation of the student's response (e.g. "Good, that's great"). However, Hammond and Gibbons (2005) argue that students can gain a much greater voice when teachers use the third phase of this sequence to extend students' responses by, perhaps, asking for clarification, probing for further understanding, extending the student's response or inviting other class members to do so, or by asking further questions which lead to greater prospectiveness. Such teacher talk demonstrates respect for students – an essential element of any learning environment – and provides the kind of support which can boost students' ability to handle challenging texts and tasks.

ALL practitioners can also assist in giving feedback on students' writing – another key feature of contingent scaffolding. This is an aspect of tertiary learning which students report to be lacking: James, Krause, and Jennings (2010) report on their survey of the first year experience in Australian universities that although 77% of students found the quality of teaching in their course to be generally good, only 35% felt that staff usually gave helpful feedback. Although it is unusual for ALL staff to have the opportunity to participate in feedback on students' writing except in individual consultations, Devereux and Wilson (2013) report on a collaboration between ALL staff and in-discipline lecturers in which they shared the marking of the students' first assignment. ALL staff participated in moderation meetings with the tutors and lecturers in the unit and marked a proportion of the assignments. The teaching team (including the ALL lecturer) aimed to give 'rich dialogic feedback' in the style discussed above. In a moderation meeting, they shared their written comments to students as a way of both calibrating their marking and enhancing their own feedback practice.

5. Conclusion

The metaphor of scaffolding is very alluring. However, like all good metaphors it leads to multiple interpretations, some of which may be less than helpful. We have argued that scaffolding is not merely a synonym for support, and that while scaffolding involves support, it is the *nature* of that support that is crucial. Rather than "dumbing down" the curriculum, we maintain that scaffolding involves challenging students to make leaps forward into their ZPD. Intellectual challenge must be high, while explanations must be explicit in terms of what is expected, how to achieve it and why it is important. This involves both demystifying academic literacy practices *and* problematising them (Wass et al., 2011).

Mariani's model of scaffolding as "high challenge; high support" offers ALL practitioners a useful framework for imagining our work. Rather than seeing ourselves as "nurturing" students, it provides an inspiring metaphor which positions the work of ALL as having huge potential impact. In a world of ever greater access to tertiary education and increasing diversity in the student body, the need for effective scaffolding of academic literacies will only increase. We are

constantly assailed by complaints of falling standards as entry levels are eroded, as exemplified by recent calls by politicians for improved standards of literacy among Education graduates. While standards are apparently under threat, the challenge for ALL practitioners is to critically apply the theoretical constructs which enable us to contribute towards greater learning outcomes. The theory of scaffolding, understood as 'high challenge; high support' is one such construct which offers rich potential.

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