The REEAL Model: A Framework for Faculty Training in Online Discussion Facilitation

Laurie Bedford Walden University

Discussion forums are a primary tool for interactions in the online classroom. Discussions are a critical part of the learning process for students, and instructor facilitation should reflect this importance. Effective instructor discussion facilitation encourages students, provides evidence and analysis and links the discussion to subsequent discourse. However, instructors receive little guidance in strategies to meet these expectations. To fill this gap, the REEAL Model is presented to support faculty in developing appropriate discussion responses. In addition, a transcript analysis technique is described which can be used as part of a faculty development program to ensure faculty have appropriate skills and background. The outcome of the process is faculty who are comfortable and confident developing discussion postings that align to learning outcome, provide meaningful, and facilitate ongoing conversation.

While emerging technologies have become more commonplace in online education, the discussion forum continues to be a critical component in student learning (Nash, 2011; Vlachopoulos & Cowan, 2010). The literature is replete with research on the effectiveness of online discussion forums (e.g., Brinthaupt, Fisher, Gardner, Raffo, & Woodard, 2011; Cranney, Wallace, Alexander, & Alfano, 2011; Nandi, Hamilton, Chang, & Balbo, 2012). Given this evidence, instructors understand that active, meaningful participation in the discussion requires more than a simple, cursory response to a few students and that their role is critical to the outcome of the exercise (Nash, 2011). Furthermore, faculty development specialists recognize that training opportunities for faculty facilitating the discussion forum need to be relevant and applicable to institutional expectations (Bonura, Bissell, & Liljegren, 2012). Still, institutions continually struggle to identify innovative and effective strategies to support faculty (Cariaga-Lo, Worthy-Dawkins, Enger, Schotter, & Spence, 2010). Guidance and structure for instructors from faculty development specialists with regard to what constitutes a substantive discussion forum response or how to develop one is typically minimal. Without clear direction, as Chang, Liu, and Shieh (2012) pointed out, the quality of the instruction, engagement of participants, and accuracy of the information in the online discussion forum are in jeopardy.

Background

As the discussion forum is perceived as a significant aspect of most online learning experiences (Nash, 2011; Vlachopoulos & Cowan, 2010), all stakeholders should understand how best to capitalize on the potential that asynchronous conversations have to enhance learning. Yet, discourse and disagreements about whether the instructor should participate, as well

as the extent of that participation, continue to exist. For example, Comer and Lenaghan (2012) and Seo (2007) identified an incongruity in advice about instructor participation from no instructor involvement to robust participation. According to these authors, both strategies have challenges and benefits.

Despite the differing perspectives presented in the literature, instructor presence and interaction in the discussion board is being demonstrated as a salient aspect of learning. According to Nandi, Hamilton, and Harland (2012), students often ask questions in the discussion forums as a means to grasp subject matter and become better versed in the content. Through the instructor's acknowledgements of their understanding, clarifications and sharing of experiences, student learning was further impacted. Additionally, studies such as those conducted by Kalelioğlu and Gülbahar (2014) and Yang (2008) suggested that that the expert contributions of the instructor lead to increased critical thinking performance on the part of the students.

To make the most of these benefits and minimize the potential challenges associated with instructor facilitation, Arend (2009) suggested that participation should perhaps be less frequent but more purposeful. According Darabi and Jin (2013), the reduction of cognitive load in the discussion task increases the quality of the overall discussion. In other words, a more limited number of postings with high quality content seemed to be most conducive to student learning. Supporting this assertion, An, Shin, and Kim (2009) found that purposeful, less frequent instructor involvement led to an environment where students' interactions were more frequent and robust. Because of the potential for enhanced learning and the development of critical thinking skills (Brinthaput et al., 2011), a paradigm in which instructors consider how discussions should facilitated rather than how many posts they make or whether they should be involved at all may be the best compromise.

Active, meaningful participation in the discussion on the part of the faculty member is a complex process (Nash, 2011). The instructor has the obligation to create meaningful, substantive replies that focus on the course content, identify learning opportunities and bring a variety of perspectives to the conversation (Bedford, 2010). Furthermore, high quality faculty realize that "the instructor's role is not so much to lead students to a correct answer as to carry on a dialogue that helps develop deeper understanding" (Arend, 2009, p. 18). Yet, there exists little guidance for instructors to build their capacity to frame comments in the most effective way, provide meaningful feedback, and pose appropriate questions to support these expectations.

Purposeful Facilitation

Instructors can understand the importance of their engagement in the discussion forum and have a desire to help students reach higher levels of critical thinking but lack an understanding of how their role manifests in the asynchronous discussion. According to Wang and Chen (2010), poorly facilitated discussions can limit learning and stifle interaction among students. The REEAL model for discussion facilitation and its prerequisite analysis provides a framework from which instructors can build their discussion facilitation skills. It serves as a promising strategy to guide faculty in

reflection and analysis of the electronic conversation that results in high-quality, substantive feedback to online learners. However, because of the time commitment involved in the process of analyzing discussion data, it is suggested that the REEAL model be used within the framework of a faculty development strategy rather than an exercise in which faculty engage during the actual facilitation of a course.

A REEAL model discussion response incorporates five distinct features: reiteration, encouragement, evidence, analysis, and linkage (see Figure 1). It provides for clarity, learning, and extended conversation. First, clarity is achieved as the instructor reiterates (R) the part(s) of the students' discussion contribution that will be addressed. This is a central pedagogical strategy as the instructor identifies the content of the discussion salient to student learning. Next, the instructor incorporates emotional support (E¹) to the student by providing feedback that demonstrates what she has done well and how she can continue to build success in her learning.

Critical thinking and knowledge construction (Garrison & Archer, 2007; MacKnight, 2000; Paul & Elder, 2005) are addressed through a presentation of evidence (E²) and analysis (A) that supports the conversation. Evidence is a broad category of information that can be brought to the discussion. What is considered appropriate evidence is based on a number of factors, including educational level, course

Reiterate

Encourage

Linkage

Analysis

REEAL Model for Online

Figure 1
The REEAL Model for Discussion Feedback

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Discussion Facilitation

materials and students' level of expertise. For example, in a graduate course, appropriate evidence would likely include peer-reviewed research. Conversely, in a bachelor's level course, the instructor's practical experience in the field might serve as appropriate evidence. The flexibility of the REEAL module allows for faculty to make these decisions based on their experience, expertise, and knowledge.

As in any scholarly discussion, an analysis is a critical component of learning in that it that synthesizes the evidence presented with the course content. Analysis draws on students' critical thinking skills and helps students identify unique ways of thinking about the topic (Wrobleski, 2007). Analysis also allows for scholarly discourse that critiques the evidence in a way that it accounts for the conclusions articulated. These strategies situate the student to make her own judgments and create arguments based on the information presented. This is the basis for critical thinking which, according to Scharfersman (1991), allows students to come to reliable and trustworthy conclusions about the issues under consideration.

The final component of the REEAL framework for discussion feedback is linkage (L). Linkage is important because it has the potential to engage students in a peerto-peer conversation, open the conversation to other students, extend the learning content to supplemental materials and/or build critical thinking skills in students. Questioning is one salient strategy instructors can use in the linkage component of the feedback. According to MacKnight (2000), questioning can "influence the depth of thinking that occurs . . . [and help students] go beyond facts and use knowledge" (p. 39). However, not all questions lead to critical thinking. According to Krathwohl (2002), questions asking students to analyze, evaluate, and/or create knowledge or information relates to higher levels of cognitive processing.

The linkage allows students to share the conclusions that they draw based on the instructor input and to engage with other students in a consequential way. This can guide the conversation from an instructor-centered activity to one in which important peer-to-peer interaction takes center stage (Nash, 2011; Vlachopoulos & Cowan, 2010). Linkage strategies can scaffold the learning for students who may have differences in expertise and lead to levels of reflection more aligned to individual situations (Akyol & Garrison, 2001). Some strategies for linkage in the REEAL model for discussion facilitation include,

- asking open-ended, Socratic questions;
- requesting that students consider and comment on a peer's, opposing perspective;
- introducing a new perspective to the conversation;

- recommending supplemental resources; and
- inviting additional students to join the conversation.

Using the REEAL model ensures that the faculty member has considered a variety of issues in her responses. It outlines the feedback that results from the use of a process that includes in-depth analysis of the discussion text and draws on content analysis techniques as described in subsequent sections. Discussion responses using the REEAL model will include one to three sentences aligned with each of the following:

- Reiteration (R): Tells the student what part of their response the instructor is referring to.
- Encouragement (E¹⁾: Acknowledges a student's effort, prior knowledge or critical thinking.
- Evidence(E²): Shows students know how their ideas are juxtaposed to the course content, other resources, or practical application.
- Analysis (A): Provides students with issues to consider for further discussion and models critical thinking.
- Linkage (L): Provides context for continuing dialogue.

The result is a comprehensive, paragraph-style response to student conversation in the discussion board that extends the conversation, provides for analysis of appropriate evidence, encourages critical thinking skill development, and promotes on-going peer-to-peer conversation.

Faculty Training Using the REEAL Model

Instructors bring to the learning environment a plethora of experiences and perspectives about online teaching (Cariaga-Lo et al., 2010). This creates a need to construct a shared understanding of expectations (Bonura et al., 2012) and an organizational culture that sets a standard for faculty behavior in the classroom (Cox, 2012). These goals are best accomplished through relevant faculty development that respects participants' privacy, their time and their individual needs (Ahmed, 2013). Faculty development prepares faculty to fully engage in the learning experience with students and enhances their skills and ability (McKee & Tew, 2013). This translates into enhanced and improved student learning outcomes (Rutz, Condon, Iverson, Mandcua, & Willett, 2012) that aligns with contemporary student expectations (McKee & Tew, 2013).

As faculty become more confident and experienced in their discussion participation, developing REEAL

style responses to student interaction may become intuitive. For less experienced faculty, a series of developmental exercises implemented through a faculty development course or training event may be required in order to become skilled at robustly participating in discussions using the REEAL framework. For these faculty, there are several prerequisite steps that incorporate qualitative transcript analysis techniques (Garrison, Cleveland-Innes, Koole, & Kappelan, 2006) that help to identify and organize the content for the response. These steps can be purposefully practiced in a coaching or mentoring relationship between a faculty development specialist and a faculty member. As an alternative the REEAL strategy can be facilitated in a development or training course in order to assist faculty members in becoming competent. In addition, a reality of using the REEAL model may be that it is most useful for faculty with a background in qualitative research. The subsequent description of discussion transcript analysis assumes prior familiarity and understanding of qualitative data analysis. For faculty less competent with qualitative techniques, a pre-requisite refresher course might be necessary.

Analysis of Discussion Text

Learning to develop a REEAL style discussion response can be accomplished through the purposeful engagement in a number of steps that incorporate elements of qualitative transcript analysis as described by Garrison et al. (2006). This situates the discussion forum text as the data to be analyzed and requires that the faculty member consider the intended learning outcomes for the students. The first step in the analysis process is to identify the unit of analysis that will be the subject of the discussion response. Next, the data (discussion text) from the identified bounded system (unit of analysis; Yin, 2003) is organized using an appropriate analytic tool. This is followed by focused coding and categorizing. The culminating step is to develop the text of the discussion response using themes synthesized from the analysis within the REEAL framework.

Determine the unit of analysis. The first step is to identify a unit of analysis that reflects the student or group of students to whom the response will be addressed. Unit of analysis is described in the case study literature in many ways. According to Yin (2003), the unit of analysis is defined within the context of the interactions of the units themselves as well as how those interactions are carried out in real-life situations. Under this paradigm the unit of analysis could be made through an interpretation of the characteristics of the discussion being presented and aligns with Tellis' (1997) definition that suggests that it be referred to as a "system of action rather than an individual or group of

individuals" (para. 28). It also allows for evolving decisions about the nature of the feedback to be provided and results in flexibility in facilitation.

For example, in discussions in which students are asked to integrate course content with a current event, scholarly article, case study, or other external topic, the unit of analysis might be a group of learners with similar perspectives or who shared their opinion on a topic. The identified unit of analysis could be based on complementary or opposing opinions, or even levels of competency. Any number of combinations of responses may be the basis of the unit of analysis ranging from a dyad to a large group of students. The ultimate decision needs to be made by the faculty member based on her expertise and understanding of the issue. This provides the faculty member the opportunity to synthesize those perspectives into a single, flexible, meaningful description of the phenomenon as well as to lead the students to the next step in their understanding of the concept.

Table 1 is an example of a unit of analysis in which four student responses were selected based on their perspectives of discussion questions posed, which were: "Why is community important in the online classroom?"; "What are the benefits of creating community?"; and, "What are some strategies that you have (or could) use to create community in your own practice?" In this example, the unit of analysis was identified as a group of students with complementary interpretations of the course content and included their perspective of the original question, articulation of similar positions, and possession of varying levels of competence.

Focused coding. Garrison et al. (2006) described transcript analysis as involving the categorizing of thoughts and concepts into units followed by an analysis of patterns of communication. However, because the focus of the data analysis in discussion facilitation is not transferability or credibility, some of the steps in a traditional qualitative analysis can be excluded. Rather, the goal in this strategy is to focus on the accuracy and depth of the content of the discussion. Therefore, focused coding and categorizing, such as those described by Hahn (2007), are the preferred Additional systematic comparison techniques. approaches that focus on deductive coding techniques aligned with specific course content, such as those suggested by Patton (2002), are also appropriate. For example, in the discussion responses presented above, the instructor is looking for specific content to be addressed by students. This includes rationale for the importance of online discussion and examples from the course materials. In addition, since this is a graduate level course, she is expecting students to draw on and cite those course materials. These expectations result in the codes presented in Table 2.

Table 1
Example Unit of Analysis

Response	Example student responses
1	Good evening. The concept of learning community is important to the instructional process for a number of reasons. The article by Smith describes these reasons as enhancing learning and leading to increased
	retention. The Canby article also added that it helps develop critical thinking skills. In my own practice, I try
	to develop a sense of community in my online courses by incorporating icebreakers in the first week of the
	course. Students seem to like this and I get a sense that they make connections that last throughout the term.
	This would be supported by Smith's discussion regarding how relationships are part of the processJuliet
2	Hi, I always develop learning communities in my classes. I encourage the students to interact
	frequently, and I e-mail those that aren't participating. Usually, after I contact them they start to engage
	in the discussions and feel more like part of the communityShannon
3	I think that learning communities are important. Without learning communities students might feel isolated
	and might not complete the course. There are many ways to nurture learning communitiesSayid
4	Dear Fellow learners. According to Smith (2008) learning communities can be described as a "sense of
	belonging and cohesion in the learning process" (p. 98). Drawing on Canby's (2010) contributions, I
	would also add that learning communities work to draw out critical thinking, empathy, and
	consideration for multiple perspectives. While all of these considerations lead to higher levels of
	learning, the latter can also be used to build greater levels of scholarly skills that can be transferred to
	other academic environments. Quite honestly, I've never thought about online interaction this way, but
	as I analyze my own practice I see that I do many of the things suggested like include ice-breakers,
	ensure that students have a place for informal discussion and encourage robust interaction. Upon
	reflection of the readings for r this week, I've made a decision that I am going to be more cognizant of
	how I'm incorporating these strategies into my courses and ensure that they are systematic and
	purposeful. Thanks for the great ideasBernard
	purposerui. Thanks for the great fueasDerhard

Note. Four student responses were selected based on their perspectives of discussion questions posed.

Table 2 Focused Coding of the Example Discussion

Comment	Code			
The concept of learning community is important to the instructional process for a number of reasons				
The article by Smith describes these reasons as enhancing learning and leading to increased	Smith			
retention				
The Canby article also added that it helps develop critical thinking skills	Canby			
In my own practice, I try to develop a sense of community in my online courses by	Icebreakers			
incorporating icebreakers in the first week of the course				
This would be supported by Smiths' discussion regarding how relationships are part of the process	Smith, relationships			
I always develop learning communities in my classes				
I encourage the students to interact frequently and I e-mail those that aren't participating	Frequent interaction			
Usually, after I contact them they start to engage in the discussions and feel more like part of				
the community				
I think that learning communities are important				
Without learning communities students might feel isolated and might not complete the	Combat isolation,			
course	retention			
According to Smith (2008) learning communities can be described as a "sense of belonging	Smith			
and cohesion in the learning process" (p. 98)				
Drawing on Canby's (2010) contributions, I would also add that learning communities work	Canby			
to draw out critical thinking, empathy, and consideration for multiple perspectives				
While all of these considerations lead to higher levels of learning, the latter can also be used to	Scholarly skills that			
build greater levels of scholarly skills that can be transferred to other academic environments	are transferable			
Quite honestly, I've never thought about online interaction this way, but as I analyze my own	Icebreakers			
practice I see that I do many of the things suggested like include ice-breakers, ensure that				
students have a place for informal discussion and encourage robust interaction				

Note. All sources cited in the examples are fictional.

Categorizing. Similar to other qualitative analysis procedures, the next step in the process is to organize the codes into categories (Corbin & Strauss, 2008). The purpose of the category development in discussion facilitation is multifaceted. First, the categories can be used to confirm or disconfirm initial decisions about how to organize the units of analysis. For example, informal analysis that identified an overlapping of ideas that could be compared and contrasted may have been envisioned by the instructor. However, as a result of more formal analysis, other issues more important to the content of the course may be uncovered. The result might be that the instructor may choose to eliminate some students from the unit of analysis and/or select others from the class. In addition, if outlying topics presented by students are tangential, the instructor may choose to give them a perfunctory mention or eliminate them in the feedback response all together.

To ensure that learning objectives are being met at this point, the instructor will also need to compare the analysis of the discussion content to the learning objectives for the course or module. This will help the instructor identify gaps in the discussion related to learning outcomes, correct misunderstandings of course content and highlight salient content. With regard to the example presented, codes were organized into three categories—sources, importance of community, and strategies for building community—based on a deductive coding strategy in which the instructor specifically mined the data for these references. Table 3 illustrates how each student's discussion posting reflected these three categories in ways that could be compared and contrasted.

In addition, the instructor added memos, as described by Corbin and Strauss (2008) and used them to highlight key issues throughout the analysis. These memos serve as reminders about specific gaps, outcomes and content that the instructor wants to remember to capture. In addition, the instructor can use self-reflection through methodical questioning of herself to address her own experiences, knowledge and perspectives. This can help her identify how her

personal opinions and expertise outside the course content might be included, if appropriate, to expand on the issues presented by the learners. Once the preliminary steps of determining the unit of analysis, engaging in focused coding and identifying the categories are complete, the development of meaningful feedback can be a straightforward process using the REEAL model.

Developing a Meaningful Response Using the REEAL Model

Figure 2 applies the REEAL model to the example discussion. Note how each component has one to three aligned sentences but, when combined, creates a fully developed paragraph with logic and conversational flow. Specifically, the example starts by addressing the students included in the original unit of analysis followed by a summary of the issues that will be addressed in the instructor's response (reiterate, R). Next, the instructor offers praise for the student's to identify these concepts (encouragement, E¹). This is followed by a discussion of how the students applied the course content to their discussions (evidence, E²), and mentions the gap with regard to the one resource that was omitted from the conversation. In addition to the instructor's reference to this source, she also describes its importance as well as additional ideas that the group needs to consider (analysis, A). Finally, the instructor poses two inquirytype, Socratic questions designed to stimulate further conversation (linkage, L).

Considering a group of students as the unit of analysis provides for the kind of synthesized feedback that facilitates ongoing discussion and continued interaction among learners (Bedford, 2010). It is most appropriate for discussion stems that require students to form an opinion, articulate a perspective, apply course content or share an experience. This is the type of discussion that promotes more interactive, reciprocal conversations (Ke, 2013) and the development of higher-order thinking skills (McLoughlin & Mynard,

Table 3
Category and Code Development of the Sample Discussion

Categories	Codes	Memos
Sources	• Smith	No references to the Johnson article
	 Canby 	
Importance of building	 Relationships 	
community	 Combat isolation 	
	 Retention 	
	 Skills development 	
Strategies for building	 Icebreakers 	Additional strategies: Sharing experiences, negotiating
community	 Frequent interaction 	meaning, exchanging of resources and perspectives

Figure 2 Example Response using the REEAL Method

Juliet, Shannon, Sayid, and Bernard,

R: You all described the importance and benefits of building community in your postings. Two of the strategies you identified as important to building community are the use of icebreakers and frequent interaction. In addition, you described these strategies as leading to the developing of relationships between/among learners, combating isolation, improving retention, and scholarly skills development.

- E¹: These are all effective ideas in ensuring engaging, meaningful discussion in your online class, so I'm pleased that you focused your responses on this topic.
- \mathbf{E}^2 : Bernard and Juliet, you both pointed to the Smith (2008) resource to support your conclusions. In addition, Bernard, you also brought Canby's ideas to the conversation. Good job. However, I'd like to also point you to the other required reading, Johnson (2012) as also indicating some suggestions that could lead towards effective community building.
- A: These include sharing experiences, negotiating meaning, exchanging of resources and identifying alternative perspectives. While I think that icebreakers and frequent interaction could certainly lead to these goals, I think that there are others that we might consider.
- L: For example, what characteristics should our frequent interaction possess? Should our interactions be primarily with individual learners or should they support the interaction among them?
- -Your Instructor

2009). There are times, however, when instructors will not be able to synthesize the content based on identified patterns—they simply do not exist. In these cases, the instructor may choose another strategy or decide not to comment at all.

The response identified the unit of analysis and synthesized their contributions in a meaningful way. Those ideas were compared, contrasted and differentiated, drawing on analysis techniques from the qualitative research literature. Additional perspectives based on the expertise of the instructor were included, as were questions designed to expand opportunities for student engagement and subsequent learning. In addition to a dialogue that centered on the emergent themes, students were referred to by name, which according to Levine (2005), is important in crediting them for their unique contributions and building on those ideas presented.

REEAL Model Responses: Additional Considerations

In some instances, an individual learner might have a unique idea, a misunderstanding or an underdeveloped response. In this case, the unit of analysis can be considered the individual learner. While the consequences of an instructor response to an individual learner may be the suppression in learner interaction (Comer & Lenaghan, 2012), there are times when the risk is necessary to focus on correction, encouragement, suggestions for improvement or requests for clarification.

This may be especially true when learners are engaged in brainstorming or assignment development activities. In this situation, individual feedback might be necessary so that the learner's unique needs and strengths can be identified. An example of feedback to an individual learner who needs guidance on an assignment development discussion exercise using the REEAL model is shown below:

Kate,

Nice job on your draft. I appreciate that you brought in citations from the course resources and you effectively synthesized your own experiences with these resource (E¹). Before you make your final edits prior to submission, I would encourage you to take another look at the instructions (R). While you've provided a detailed response to Part I, Part II needs some additional development (A). Note that you are asked to include an example from your experience (E²). I don't see where you've included this (A). If you need some help, refer to pages 66-67 in the text where it describes how to incorporate a personal example (L).

-Your Instructor

In this example, the single student—"Kate"—was considered to be the unit of analysis based on her individual need for direction about the course assignment. The individual feedback to Kate included support and encouragement, but also specific analysis

about what she needs to do to fulfill the requirements of the assignment. If Kate were the only learner in the class with this issue, it would be appropriate to offer her individualized feedback. However, if other learners demonstrated this same deficiency, a larger unit of analysis might be explored.

Opportunities to consider the entire class as the unit of analysis are also often presented in the discussion. In these cases, an overall summary directed at the entire class might most appropriate. Whole-class summaries may include a synopsis of ideas presented throughout the individual postings, the instructor's perspective on the topic, additional resources related to the topic or guidance on how the topic applies to previous or subsequent course concepts. Considering the whole class as a unit of analysis is appropriate in instances including those in which individual student postings have maximum or minimum diversity or when the instructor's input might hinder other feedback such as in peer reviews (Bedford, 2010). An example of a summary statement considering the entire class as the unit of analysis follows:

All,

I've appreciated reading your peer-reviews and found your advice to be appropriate (E¹). Some of the issues that you brought forward included: (1) ensuring that you provided examples for how to build learning communities in addition to describing your theoretical framework, (2) connecting the notion of learning communities to our prior discussions about adult learning principles, (3) including citations from the discussion section in the application to create a cohesive paper, and (4) attending to issues of APA. (R)

In addition, some of you suggested that your include some fellow learners background information regarding the organization to which you've applied the concepts (R). Remember that the intent of the assignment is to describe how you would apply what we learned about leaning communities (E²). While this might be helpful to the reader, it is not a required part of the assignment (A). As we move forward with the peer-reviews it is important to ensure that we are directing our colleagues to the rubric and specific instructions so that all of us can meet the expectations of the assignment (L).

-Your Instructor

In this example, the instructor found a misconception being perpetuated and so included a corrective statement without naming any individual students within a REEAL framework response. This strategy allows the learner to determine how the feedback he/she received should be addressed in the final submission of the assignment. It also provides opportunities for other learners to reassess their own work to determine if they have met the standards outlined in the summary.

Conclusion

While technologies to support online learning are continually emerging and developing, the discussion board endures as the primary mode of classroom interaction (Nash, 2011; Vlachopoulos & Cowan, 2010). This situates the discussion board as a key vehicle in learning outcomes. These include higher levels of critical thinking by students (Arend, 2009), enhance individualized learning experiences for students (Du, Yu, & Olinzok, 2011) and assurance of appropriate knowledge construction (Hew & Cheung, 2011). To be effective, the discussion board must be an environment that fosters student engagement with faculty, peers, and content (Brinthaupt et al., 2011). To accomplish these tasks, balanced and appropriate facilitation by an instructor is essential.

The development of faculty skills in discussion facilitation using the REEAL model as part of a comprehensive faculty development program has the potential to provide the framework for faculty skills that novice and experienced instructors need to engage in robust electronic conversations with students. The strategy aligns with evidence that suggests faculty engagement and dynamic interaction in the discussion area will lead to enhanced learning (Darabi & Jin, 2013; Kalelioğlu & Gülbahar, 2014; Nandi et al., 2012; Yang, 2008). In addition, anecdotal evidence from faculty suggests organizational guidelines for substantive feedback generally lack detail and structure. Faculty who have used the REEAL framework to build skills in discussion facilitation have cited positive reaction from students and more engaging conversations.

The time commitment to become skilled in using the REEAL model can be of concern. However, the potential for the REEAL model to lessen the burden on faculty in their discussion contributions is significant as the model provides a way to develop fewer responses to more students in a meaningful way. This, in turn, reduces the burden on the students to review numerous entries, which leads to a more positive experience (An et al., 2009; Arend, 2009; Darabi & Jin, 2013).

Yet the REEAL model continues to be a theoretical framework for discussion facilitation based on best practices and extrapolated empirical evidence with regard to student learning in the online environment. Given that the discussion forum will likely continue to be a key component of the online classroom experience for the foreseeable future, research focused specifically on the REEAL framework could provide insight into unique learning opportunities that instructors have with their students. Empirical data, juxtaposed with

anecdotal and extrapolated evidence, could better support and guide instructors in their pedagogical practices within the context of the REEAL framework and inform instructors on how best to use their time to meet students' needs.

Clearly, in order for instructors to be effective in their interactions with students via the discussion board, their contributions must be purposeful and targeted towards student learning outcomes (Bedford, 2010; Brinthaput et al., 2011; Kalelioğlu & Gülbahar, 2014; Nash, 2011). As institutions continue to use the discussion forum as a salient learning opportunity for students, faculty development needs to be aligned with clear expectations and guidance for instructor performance. The REEAL model for discussion feedback and its associated strategies could provide the framework for organizations to support faculty in understanding expectations and developing the skills for implementation.

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LAURIE BEDFORD is a Faculty Specialist with the Center for Faculty Excellence at Walden University. Her research interests include online learning and faculty development with an emphasis in innovative pedagogical practices.