Journal of Research on Leadership Education

December 2011, Volume 6, Issue 5

A Tale of Two Forums: One Professor's Path to Improve Learning Through a Common Online Teaching Tool

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As institutional and market pressures move more faculty into the online teaching space, renewed discussions are occurring about how to best teach online, and what features of online courses are best to employ. A distance learning staple, the online discussion, or asynchronous discussion forum (ADF) is an easy strategy for faculty to employ in an online course. However, tying ADFs to course goals, and ensuring they are deployed in ways that truly advance student learning is more difficult. This article provides an overview of ADFs and their role in the online teaching environment. The author reviews his own experiences with ADFs in a graduate educational administration course. Using a theoretical framework for quality distance education, the author critiques his own early efforts and subsequent improvements, ultimately providing a structure for other faculty to use as a model for their own ADF implementations.

There is increasing pressure within higher education for faculty members in professional programs, like educational administration, to teach online. This is evidenced by how widespread online teaching has become in the United States, particularly within graduate and professional programs. In 2006-2007, 60% of an estimated 1,810 institutions that had graduate or professional programs offered credit-granting online, hybrid/blended, or other distance education courses. Enrollments in online, hybrid/blended online, or other distance education courses at the graduate level reached 2,349,900 in 2006-2007 (Parsad & Lewis, 2008). Much of this growth emanates from within colleges and universities, ever seeking ways to scale credit hour production, and from the open marketplace, wherein prospective students are clamoring for coursework that is accessible and flexible.

The migration from traditional classroom teaching to online environments is a double-edged sword, with benefits and liabilities for students, faculty, and institutions. Among the benefits of teaching online are flexibility in terms of the time in which teaching and learning takes place, increased scale in terms of the number of students that can be taught at any one time, and the leveraging of new, rich media in the teaching space. However, the liabilities can outweigh the benefits and are sometimes not caught until it is too late. For instance, teaching online can rapidly expose poor pedagogy. Faculty with decades-long experience teaching face to face find that the techniques they take for granted in the classroom do not translate immediately to online

environments. This includes provision of feedback in class, leading discussions, managing in-class projects, and the delivery of content (Ko & Rossen, 2010; Zhao, Lei, Yan, Lai, & Tan, 2005; Ragan, 2007) Such liabilities, if not addressed up front, can lead to the delivery of courses that are innovative in name only and provide a learning experience for students that is dull, perfunctory, and at risk of not achieving the stated learning objectives for the course.

I will address a popular and often undercapitalized strategy for online teaching, the asynchronous discussion forum (ADF), known colloquially as chat boards, chat rooms, discussion rooms, or just plain course forum. Because rich in-class discussion is often the backbone of graduate level courses, ADFs are usually the first tool teachers reach for when creating an online course. However, managing student interaction within an ADF is not the same as that in a face-to-face environment. Effective ADFs require planning, maintenance, and attention to be effective in contributing to student learning and to maintain students' interest.

This is a tale of two sections of the same course, taught a year apart, and the steps I took to improve how ADFs were used within them. To begin the tale, I present a brief overview of research on online learning and ADFs in particular. I then present a framework, Linn's (1996) scaffolded knowledge integration, for assessing and designing courses in which ADFs play a major role in a learner's experience. I then discuss the course, Leading School Reform, into which I have been integrating ADFs. I review the disappointment I felt in my first ADF implementation within that course and then provide an overview of the changes made in anticipation of the subsequent course offering. I discuss the changes in light of scaffolded knowledge integration and close with some tips for new ADF implementers.

Online Learning and Asynchronous Discussion Forums

Research, in the form of meta analyses, has been conducted in the last decade to examine the question of what constitutes a successful online learning experience (Zhao et al. 2005; Bernard et al., 2004; Machtmes & Asher, 2000). In a recent meta analysis of 51 study effects, 44 of which were taken from research on older learners (those that are of post-secondary age or older), Means, Toyama, Murphy, Bakia, & Jones (2009) found that students who took all or part of their classes online had learning outcomes that were better, on average, than those taking the same course through face-to-face instruction. Furthermore, the effectiveness of online learning appears to reach across content and learner types. Online learning is an effective option for undergraduates, graduate students, and professionals across a wide range of academic areas (Means et al., 2009; Bernard et al., 2004; Sitzman, Kraiger, Stewart, & Wisher, 2006).

It is findings like these that leaders in universities and colleges find encouraging as they continue to make the case for putting more courses online. But in spite of such findings, it is still the case that the professor who is successful in a face-to-face setting is not guaranteed to be so online. Why is this the case? Because the positive effects of online learning are not consistent from course to course. Means et al. note:

> Despite what appears to be strong support for online learning applications, the studies in this meta-analysis do not demonstrate that online learning is superior as a *medium*. In many of the studies showing an advantage for online learning, *the online and classroom conditions differed in terms of time spent, curriculum and pedagogy*. It was the *combination* of elements in the treatment conditions (which was likely to have included additional learning time and materials as well as additional opportunities for collaboration) that produced the observed learning advantages. (2009, p. xvii)

Thus, observed learning advantages in courses that have online learning components are less due to the fact that the course is online and more attributable to how the course is designed. ADFs, as a form of online learning, have their own design constraints. ADFs, whether implemented as the main method of delivery in a course or as an augmentation to face-to-face learning, deserve extra attention to ensure they are effective.

Unique Aspects of ADFs

When facilitating ADFs, the role of the instructor changes from that which he or she plays in face-to-face learning environments, as does the time he or she must invest in the process. Harlen and Doubler (2004) found that facilitators of an online course spent on average over nine hours per week, 16% more per week than an instructor in the same on-campus course. Instructors in asynchronous settings must express emotion, passion and interest in the subject matter in different, and often, more explicit ways. In asynchronous settings many human-centered artifacts (tone of voice, body language, spontaneous utterances) are absent. Thus instructors must make up for this, often by becoming more cognitively involved in the material (Coppola, Hiltz, & Rotter, 2002).

Instructors must be more greatly attuned to stimulating good asynchronous discussions. Thus learners should have readings assigned to them, have time to reflect, and be presented with a specific question on which to react (Dysthe, 2002). Lack of a face to face meeting means that instructors must be present in the asynchronous "room" in new ways. Mazzolini and Maddison (2003) found that learners perceive an instructor as having more enthusiasm and expertise when they increase their postings in the asynchronous space. Furthermore, the perceived presence of the instructors is more important than the perceived presence of peers in student satisfaction (Swan & Shih, 2005).

A Framework for Designing Asynchronous Discussion in a Course: Scaffolded Knowledge Integration

I employ Marcia Linn's scaffolded knowledge integration framework (1996) as a theoretical framework for assessing the structure and design of the ADFs I discuss below. The scaffolded knowledge integration framework is a useful tool for ensuring ADFs are designed to contain features that are likely to be effective for learners. The framework assumes that students who take an autonomous stance toward learning

succeed in most courses and that course designers who take a scaffolded knowledge integration approach succeed with most learners. These positions would stand in contrast to those of students who are *passive* or *active* learners and course designers who take a *transmission* stance toward teaching.

Linn argues that courses can be designed to provide opportunities for students to develop the cognitive skills necessary for autonomous learning—and it is precisely the electronic distance learning courses that require more autonomous learning capability on the part of the student because there is the inherent risk of less interaction between course participants.

What, then, are the features that should be incorporated into ADFs that contribute to autonomous learning? First one has to know some of the features of the autonomous learner that faculty can encourage.

Autonomous learners, according to Linn (1996, p. 826):

- Take responsibility for their own learning and assess their own learning. In doing so they diagnose weaknesses, seek help on topics that elude them, and allocate their time to work on those aspects of the course that are most important;
- Know their own learning habits, and
- Set realistic goals and use the feedback they receive to adjust. Autonomous learners tend to earn grades they expect because they understand how their actions are related to their performance.

Learners taking a passive stance toward instruction tend to absorb information and rarely reflect on or identify connections between ideas, forgetting what they have learned. Active learners tend to respond to hints and guidance, reflect when prompted to do so, and tend to follow course instructions, but do not internalize their actions—they look to outsiders to guide and monitor their learning.

What is challenging, from a design standpoint, is that faculty may believe they are moving students into an autonomous stance through discovery activities, hands-on learning activities, or projects. But these activities make learners active, not autonomous. In sum, the bulk of instructional design, as it stands for electronic distance learning, emphasizes the transmission of content or opportunities to be active, but does not help students become autonomous learners.

How Does Scaffolded Knowledge Integration Create Autonomous Learners?

Linn (1996) suggests the following guidelines for making distance learning effective:

- Courses need goals that are understandable by learners and perceived as achievable.
- Courses need to make the important and difficult ideas, practice, and culture of the given discipline visible to learners.
- Students must link ideas, compare alternatives, reflect on progress, or critique ideas and have the support to do so.

- Courses need to take advantage of the social nature of learning so that alternatives to ideas can be explored, communities can be engaged, and collaboration practices can be established. (p. 829)

The Course "Leading School Reform"

The catalog description for the Leading School Reform course is as follows: "Study of principles of transformational leadership and collaborative decision-making skills. Leadership activities that facilitate the development of a school culture that embraces change and school reforms that result in high quality schools dedicated to improved student achievement."

My First Attempt at Implementing an ADF within this Course

For the last few years, Leading School Reform has focused on discussions among students on how data can be used to make decisions in public schools and what role professional learning communities can play in the school improvement process. When I taught a section of the course for the first time, I created a blended delivery method, wherein I combined some face-to-face instruction at the beginning and end of the term and used asynchronous discussion in the weeks in between the in-person class meetings. In all, approximately 80-85% of the course took place online using a Typepad blog as a means for posting assignments, online readings, and other media. Blog posts were the means by which assignments were delivered to the students. All the readings in the course were divided into weekly "chunks" and posted in advance to the blog as an assignment with a due date. In all the cases, the blog's comment feature was used as the ADF in the course. Reading assignments would be posted to the blog coupled with a request by me for the students to write their thoughtful reactions, comments, or questions as a comment to the post.

As I reflected on the online component of this first version of my course, I came to the simultaneously demoralizing and motivating conclusion: I was overwhelmingly disappointed at the results of the ADF component of the course. Several issues surfaced upon reflection.

The structure for online discussion I provided in the course was far too loose. I had merely requested that students post thoughtful comments regarding their readings, falsely believing that a student posting in an ADF is participation enough. But as I found, "simply forming an asynchronous discussion forum, providing the technology, and a question or topic of discussion is not enough to ensure success in an asynchronous (course)" (Andresen, 2009, p. 250).

I had left too much of the discussion agenda to be set by the students. This, from the start, undermined my ability to constructively add to the conversation and it eviscerated opportunities to provide competent assessment feedback to students regarding their writing in the ADFs. Mazzolini and Maddison (2005) categorize the instructor role in asynchronous settings as sage, guide, or ghost. If I honestly evaluated myself, I was mostly a ghost with sage overtones, and I could have been a much better guide.

Related to the previous point, I falsely believed that if students were given the opportunity, and were encouraged/mandated to post online, I would see a good conversation that was rich and interesting. Some of it was, but mostly it was not. My being more of a specter in the discussion than community member contributed to this. It also made it difficult to assess the student postings. This contributed to the next issue. Some students complained about the lack of feedback they received in ADFs.

The result: I felt flooded, emotionally and logistically, by the amount of student output, much of which I was not happy with. I also felt very ineffective as a teacher and as a leader of a conversation on some very important topics.

Critiquing the First Attempt Through the Perspective of Scaffolded Knowledge Integration Framework. Several aspects of the first attempt to implement ADFs into my course appeared problematic when held up against the scaffolded knowledge integration framework (Linn, 1996).

- While the course assignments that directed students to an asynchronous discussion were clear, they were not designed in a way to help my students internalize what they read or discussed.
- There were no explicit features built into the tasks I wanted students to complete within the ADF that would ensure they connected the discussion to problems they previously had solved.
- I treated the reading discussion as more of a discovery activity, which makes learners more active, but not more autonomous.
- I did not have explicit design features that provided students opportunities to attain reflective feedback on their discussions.

My Second Attempt at Implementing an ADF within this Course

I looked at the root causes of the problem and focused on two that I felt I could effectively address: (a) I needed to be more involved in the discussions, and (b) to do so I had to better structure the way discussions took place in the class. In doing so, my aim was to create an asynchronous learning environment that was focused, effective, and assessable.

My solution to creating ADFs that were focused, effective, and assessable involved making conscious design choices that would create purposeful structure. While this could be done in a number of ways, I chose to break down the core components of the course by human role: what students will do and what I will do.

What Students Do in Version Two of the Course. Students are expected to engage in the following main tasks in the course.

Discuss important readings, selected by the instructor, amongst themselves and with me in an ADF. The readings were clustered into modules that were presented in a logical order. By clustering readings into modules I gave myself the affordance of holding summary discussions in addition to discussions on the discrete readings.

Write an original, informed written response to each week's reading. I posted questions for a new weekly reading each Monday evening. By the following Sunday,

each student was expected to post a thoughtful, unique answer in 300 words or less (and an answer that was not the same as that given by another student). Students were told to build an informed response and that in order to do this they needed to respond at least twice to my question in the following manner:

- Post once, early in the week, with their initial thoughts on the question;
- Read their classmates first posts, and then
- Post a final response structured around their previous postings and those of their classmates in an attempt to integrate different thoughts and opinions.

Students were allowed to post more than twice; the point was that regardless of the number of posts, their final post of the week was the post that received a grade. Therefore, that was the one that needed to be the thoughtful, unique answer to my question.

Finally, the final post could not be more than 300 words. Yes, I capped them. This served a couple of purposes. First, it made the assessment of the posts a manageable task for me as an instructor. Second, students were graded on the quality of their response—not quantity. This encouraged them to be thoughtful rather than verbose. A rubric with the criteria for what constituted a quality final post was provided to the students and used by me to grade the posts. The rubric addressed content, organization, and mechanics.

Use the content created over the entire term within the ADF to develop some kind of course capstone, in my case, a synthesis essay. The synthesis essay assignment asked each student to incorporate the posts from their classmates in one of the weekly discussions we had during the term, along with a variety of sources from our course, such as the articles, reports and chapters the students had read. Their task was to write a logical, well-written essay articulating the position of the class, as a whole, in one of the weekly discussions, and then state their own position on the issue in relation to what the class believed.

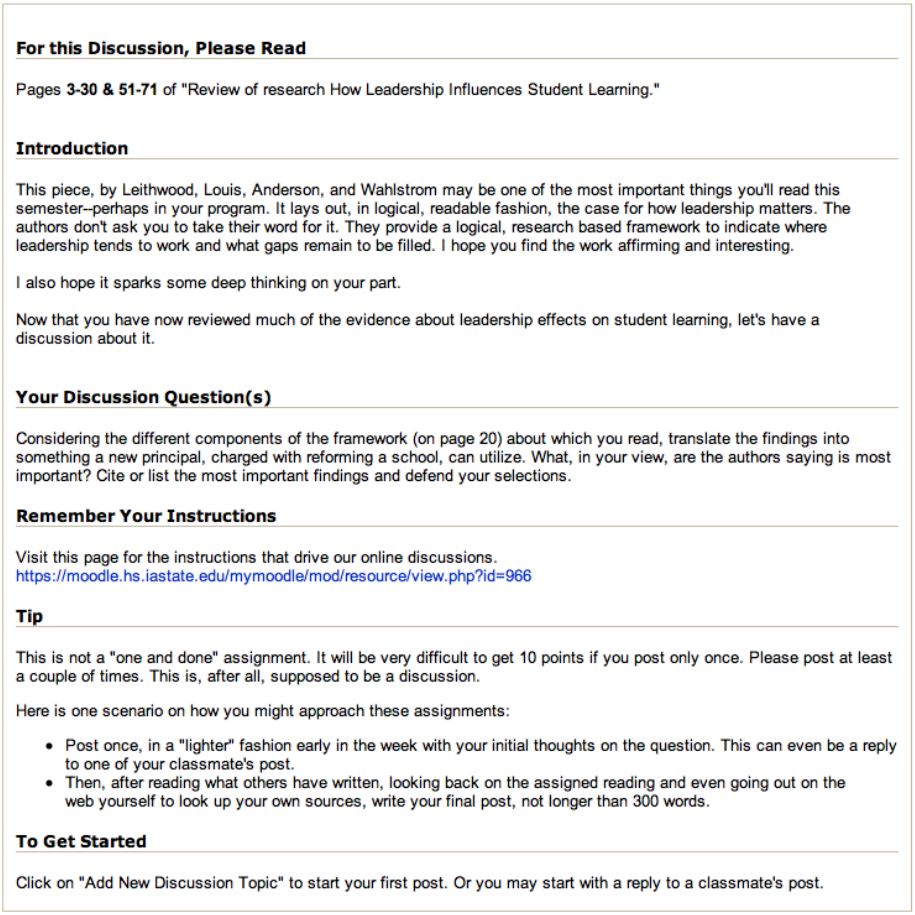
Each student was to write an essay in which she or he summarized the position of the class for the week's discussion selected and then develop a position on the issue. I capped the word length on this essay to 1250 words. The challenge for the students was in remembering that they were synthesizing their own position with the positions of others.

What I Do in Version Two of the Course.

Provide a clear discussion question each week. Within the online platform (I used Moodle), I presented a standardized assignment page for each week's reading assignment. Providing a standard assignment page reduced ambiguity on the part of the students about what to expect each week. They were able to more easily scan the assignment and find the parts that were most important to them. Further, critical information that could be overlooked by a student week to week was repeated in every assignment. The standard page had six headings:

- What to read
- An introduction to the question of the week
- The discussion question
- A reminder of the instructions (rules) for our discussions (minimum of two posts, final post is graded, etc.)
- A tip on how to tackle the assignment
- Instructions on how to start

Here is a screenshot from our online classroom that shows what the reading discussion assignment looked like to the student.



For this Discussion, Please Read

Pages **3-30 & 51-71** of "Review of research How Leadership Influences Student Learning."

Introduction

This piece, by Leithwood, Louis, Anderson, and Wahlstrom may be one of the most important things you'll read this semester--perhaps in your program. It lays out, in logical, readable fashion, the case for how leadership matters. The authors don't ask you to take their word for it. They provide a logical, research based framework to indicate where leadership tends to work and what gaps remain to be filled. I hope you find the work affirming and interesting.

I also hope it sparks some deep thinking on your part.

Now that you have now reviewed much of the evidence about leadership effects on student learning, let's have a discussion about it.

Your Discussion Question(s)

Considering the different components of the framework (on page 20) about which you read, translate the findings into something a new principal, charged with reforming a school, can utilize. What, in your view, are the authors saying is most important? Cite or list the most important findings and defend your selections.

Remember Your Instructions

Visit this page for the instructions that drive our online discussions.
https://moodle.hs.iastate.edu/mymoodle/mod/resource/view.php?id=966

Tip

This is not a "one and done" assignment. It will be very difficult to get 10 points if you post only once. Please post at least a couple of times. This is, after all, supposed to be a discussion.

Here is one scenario on how you might approach these assignments:

- Post once, in a "lighter" fashion early in the week with your initial thoughts on the question. This can even be a reply to one of your classmate's post.
- Then, after reading what others have written, looking back on the assigned reading and even going out on the web yourself to look up your own sources, write your final post, not longer than 300 words.

To Get Started

Click on "Add New Discussion Topic" to start your first post. Or you may start with a reply to a classmate's post.

Figure 1. Screenshot of reading discussion assignment.

Introduce each week's reading with an email to the class. I felt I needed to be "present" as much as possible for the students, and my email client became an indispensible tool for staying in touch above and beyond the communication tools built into our online classroom. Each Monday, as I released a new reading assignment, I emailed the students to: (a) check in, (b) provide some context for our work in the coming week, and (c) foreshadow forthcoming discussions. Here is an example of what one of these emails looked like:

Greetings, 554'ers.

I hope that you had a great weekend!

I just wanted to point out that this week's reading is *Review of Research: How Leadership Influences Student Learning*. See the assignment in Moodle for which pages to read.

This piece, by Leithwood, Louis, Anderson, and Wahlstrom may be one of the most important things you'll read this semester--perhaps in your program. It lays out, in logical, readable fashion, the case for how leadership matters.

And the authors don't ask you to take their word for it. They provide a logical, research based framework to indicate where leadership tends to work and what gaps remain to be filled. I hope you find the work affirming and interesting.

The discussion forum for this reading is now live. You can find it on the Moodle, entitled Question(s) for Discussion 3 - Discussion From Mon., Sept. 20 - Sun., Sept. 26

Like before, it is an individual assignment, wherein you post your remarks between now and next Sunday (but based, of course, on the discussion we have during the week). Be sure to know the directions for our discussions inside and out. They are posted on the Moodle and are called Instructions for Forum Discussions.

By the way, this is the third and final reading in our series of discussions on how leadership plays a role in school reform. Next week we move on to the reading and discussion module entitled "Reform as Design Thinking."

Have a great rest of the week!

-->john

Participate in the online weekly discussions as a peer and coach. I strove to be seen as a participant in the discussions primarily in two ways. First, I actively listened for opportunities to post additional resources based on the active discussion. Many times I would be familiar with an online resource that pertained to our active discussion. When that was the case, I would post the resource in our online classroom

proximate to the active discussion area. I also gave attribution to the person whose post prompted the addition of the resource to the classroom space. Here is an example of how that appeared on the course website:

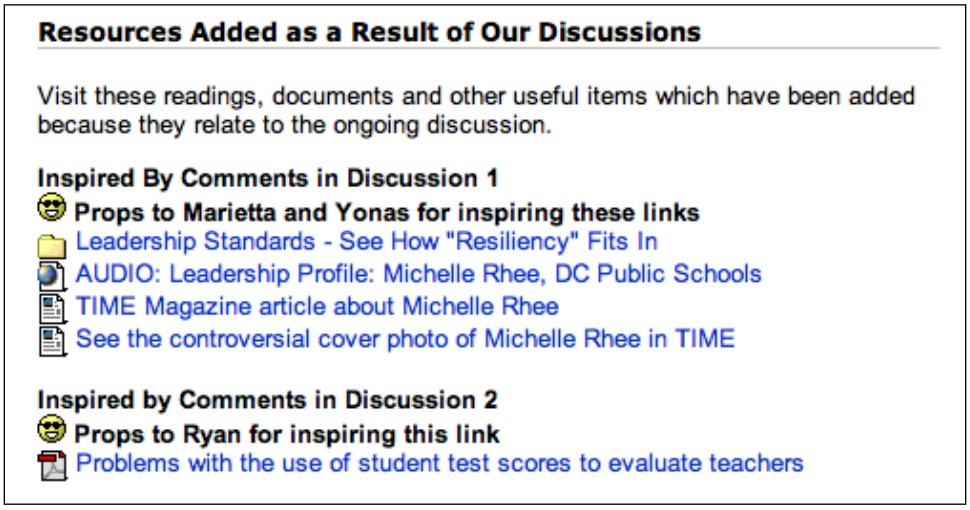


Figure 2. Screenshot of attributions and resources on the website.

Write mid-week encouragement emails. I wrote emails to the class based on the tone, tenor, pace or content of the discussion as it grew. Here is an example of what one of these emails looked like:

> Hello there, 554.
>
> Regarding the current discussion on William Easterly's chapter, in a word, WOW! You guys are really nailing it. Collectively, this is some of the best writing I've read by a class all year. Thank you for your candor, passion, and competent application of Easterly's thinking to the situations in your schools.
>
> If you have not done so, I urge you read everyone's last posts thus far. There are many tragic tales of Planners foisting utopian dreams upon your classmates, and several tales of great courage and work to create incremental, accountable gains by Searchers in the schools. I do not believe I'm overstating it: it's all worth reading.
>
> Let me know your questions, or post a question for all of us to talk about on the General Course Forum.
>
> Thank you for all you do! You're becoming ever more expert in the subject of leading school reform.
>
> --->john

Provide clear criteria, via rubrics, on what is expected. Every student work product was now held up to a performance rubric. By designing rubrics in advance, I was able to worry more about the things that were most important to me in the course—being present for the students and taking part in the overall conversation in the course (and not really ever wondering if student work product was of high enough quality). By having rubrics I could be transparent about what the expectations are for student work, reduce conversations about what was quality and what was not (it was evident), and have a framework from which I could provide formative feedback that helped students improve their work product over time.

Model good online course citizenship. I set aside a large part of the course website for affective matters and Internet support. On the affective side, I provided a page-long introduction of myself, including my professional and personal interests and how I come to be passionate about the topic we were studying. In addition to providing traditional contact information (office phone, cell phone, email address), I created three additional ways in which students could contact me:

1. A public course forum in which a student could ask a question that would be seen by all students in the class (metaphor: raising one's hand in a face-to-face class).
2. A link to invoke the student's email client so that they may send me a private email (metaphor: asking me a question after class).
3. A link that allowed a student to chat live with me anytime I was logged into my Gmail account (which tended to be quite often). When students clicked this link, a new chat window appeared on my Gmail screen. This was the most popular way to contact me after traditional email (metaphor: catching me in the hall).

Critiquing the Second Attempt through the Perspective of the Scaffolded Knowledge Integration Framework. To date several issues appear to have improved as seen through the lens of the scaffolded knowledge integration framework (Linn, 1996).

- Discussions: By discussing the readings in a module format (linking key readings within a module and linking modules across the course), I am making visible the goals I want students to achieve and leveraging the social nature of learning. Students now benefit from their peers replying to their posts, and the structure of the modules allows students to link ideas to each other as the content unfolds. In the next launch of the course, I would like to model professional discourse by communicating with guest experts while students observe and emulate expert discussion practices.
- Synthesis: The synthesis essay makes the student's thinking visible and guides the students in the linking of their ideas across content areas.
- Clarity: Ensuring that the assignments are clear across the modules supports the need for having goals that students can achieve.

- Social: As I increase my frequency and authenticity in the ADF, and provide multiple channels for contact, I leverage the social nature of learning and support activities that scaffold autonomous learning on the part of students. The benefits of this are increased opportunities for one-on-one guidance, and the mediation of the risk that lower-than-average student-teacher interaction will take place (as is often found in asynchronous learning environments).
- Feedback: Providing clear rubrics supports autonomous learning because students now receive weekly feedback in the presence of realistic goals, thus guiding students to adjust their actions over time.

Conclusion and Recommendations

In this article, I have taken a page from my own course development experiences to describe how a relatively common distance learning tool, the asynchronous discussion forum, can be used to support learning experiences that are meaningful for students. The ubiquity of ADFs make them an easy selection for faculty who elect to implement online learning. However, ADF implementations are fraught with pitfalls and can lull faculty into a false sense of security that the quality of their online teaching is as high as that of their face-to-face efforts.

Recommendations

The following are recommendations for faculty seeking to implement or improve ADFs into their teaching.

- Set clear goals for what you want learners to achieve and communicate that, with passion, to your students.
- Link the discussion topics to the goals in such a way that learners can make connections among the ideas you present in the course.
- Provide clear prompts and assessment criteria for the discussions you launch in the ADF.
- Model good practices while in the ADF that demonstrate how learners can help each other learn.
- Use a framework like the scaffolded knowledge integration to check the design of your ADF implementation. Such a framework will help ensure that the activities you have students do in the ADF are appropriate for autonomous learners and help passive and active learners adopt more of an autonomous stance.
- Consult practical manuals, like Ko and Rossen's (2010) *Teaching Online: A Practical Guide* and Ragan's (2007) *Best Practices in Online Teaching*.

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