

## **BREAKING THE BARRIERS: CO-CONSTRUCTING AN ALTERNATIVE ASSESSMENT**

Lisa A. Jurkowitz and Claudia R. Kost  
*University of Arizona*

This study investigated the student-driven planning, taking, and evaluating of a non-traditional assessment tool in a graduate course on "Collaborative Ways of Knowing, Teaching, and Learning." Using computer-mediated communication, students explored a "non-foundational paradigm" which encourages reciprocal interdependence and values the process of constructing knowledge over the product. The roles of the participants shift as the students take on more responsibility in becoming the *planners* and *directors* of their collective learning, while the instructor becomes a co-participant, sharing authority and responsibility with the students.

### **INTRODUCTION**

#### ***Moving Along the Non-Foundational Continuum***

The teacher and students of German 696d had little idea of the kind of adventure they were embarking on, as they assembled for their first class of the semester: "Researching the Paradigms: Collaborative Ways of Knowing, Teaching, and Learning." With time and some initial guidance from the instructor, the seven individuals together began their acculturation to a new way of thinking, learning, and teaching, based on a "non-foundational paradigm."

According to this model, knowledge includes a multiplicity of perspectives (Maher & Tetreault, 1994). The understanding of knowledge and truth are socially constructed through negotiation with others: "knowledge is a consensus among the members of a community of knowledgeable peers--something people construct by talking together and reaching an agreement" (Bruffee, 1993, p. 3). In a non-foundational paradigm, collaboration and interdependence are the norm. Due to the high value placed upon interaction and reciprocal interdependence, the process of constructing knowledge is valued over the product. Furthermore, there is a shift in the roles of the instructor and students. The students take on more responsibility in becoming the "planners and directors" of their collective learning (Johnson, Delarache, & Marshall, 1995, p. 24): authority is re-directed, and all participants share equal rights in the construction of the course curriculum.

In contrast, the foundational model is based on the transmission of a pre-determined core of knowledge, considered to be "truth." As Maher and Tetreault (1994) state, the non-foundational model "challenges the authority of traditional paradigms, showing them to be embedded in history rather than enshrined truths" (p. 5). Additionally, according to the foundational paradigm, individual work is the only means of accomplishing a task, whereas collaborative work is considered inferior, almost akin to cheating. Moreover, the process involved in creating a product is rarely considered; the product is the only element collected and/or evaluated. Regarding the shift in roles of the teacher and learner, the instructor in a foundational paradigm assumes the role of authority, while the students take on the role of receivers of knowledge (Bruffee, 1993; Johnson et al., 1995).

The students who enrolled in German 696d had experienced and been trained almost exclusively in traditional, foundational classrooms. Thus, moving along the continuum from foundational to non-foundational thinking proved difficult. They had to "learn, sometimes against considerable resistance, to grant authority not to the teacher alone but to a peer ... instead of the teacher. They also [had] to learn, sometimes against considerable resistance, to accept the

authority given them by a peer and to exercise that authority judiciously and helpfully in the interest of a peer” (Bruffee, 1993, p. 26). It was equally challenging for the members of German 696d to engage in true dialogue, as this involved the suspension of their own beliefs and a need to listen carefully to the other members of the class before asserting their own opinions (Bohm, 1996). As the class gained more and more familiarity with the theories, terminology, and practices of non-foundational learning and teaching, they became members of a new, transitional knowledge community. That is, they began speaking the language of the new community “fluently” (Bruffee, 1993).

### ***Classroom Structure***

The graduate class was held twice a week, for a total of 2.5 hours. On Tuesdays, the participants met in a traditional classroom. On Thursdays, they met in the COHlab, a computer lab specifically designed for both face-to-face communication and collaborative, computer-mediated communication. This research and teaching facility consisted of one large room with 3 pods of 8 computers each, along with swivel chairs on wheels. The latter facilitated easy movement from one computer to another, or from one pod to another. As part of their acculturation into their transitional community, the participants thus needed to become computer literate in addition to becoming literate in the discourse of non-foundational knowledge.

In the COHlab, several different kinds of software were used: Connect.Net, Nicenet, and POLIS (Project for On-Line Instructional Support), all of which facilitated synchronous, real-time collaborative discussions. The above software also supported asynchronous, deferred-time discussions for the continuation of members’ thoughts beyond the confines of the classroom.

At each Thursday session, the seven participants would group around one pod and dialogue via the computer about a particular set of issues related to that week’s reading or about issues brought up on a prior Tuesday. In order to initiate discussion for the day, a set of questions were generally posted on one of the computer programs, either by the instructor, or by students who took on the task of “leading the discussion in the COHlab.” The particular procedure following the posting of discussion initiators varied.

At times, the members typed their comments individually, posted them, read the others’ comments, and subsequently engaged in real-time dialogue with each other. At other times, the members worked collaboratively to answer or reflect on the day’s questions. Sometimes, discussion involved a combination of the two formats. In all cases, speaking was encouraged, although the amount and extent of spoken discourse varied depending on the task.

As for the degree of success of real-time dialogue, time often prevented the members from truly engaging in back and forth discussion in the COHlab, as each session only lasted one hour and 15 minutes. For this reason, the instructor asked that everyone continue responding to issues from home or from the computers on campus. This worked at times, but became more and more of an obstacle in the class. This issue will be further discussed at a later point in the paper.

### ***The Integration of Technology***

Within the technology-assisted collaborative learning paradigm of the German 696d class, the computer was viewed as a “catalyst,” a “provocation” and an “occasion for social interaction” (Bruffee, 1993, p. 103). It was also regarded as “an additional channel through which to communicate--collectively and/or individually” (Kern, 1998, p. 108; Blake, 1998). The underlying assumptions for such perspectives maintain that social interaction plays a central role

in the learning process (van Lier, 1998) and that technology should be integrated with social relationships (Bruffee, 1993).

Although the class faced several challenges in interacting with each other through technology, the participants gradually overcame these obstacles. Overall, the sessions in the COHlab provoked much social interaction, both on-line and face-to-face. The communicative exchanges were, for the most part, contingent (“constructed on the spot rather than planned in advance”) and symmetrical—that is, members “contributed fairly equally without dominating the conversation” (van Lier, 1998, p. 159). They involved a lot of reciprocal interdependence wherein “one group member’s output became another’s input and vice versa” (Saavedra, Earley & van Dyne, 1993, p. 65). Similarly, the members often helped each other, both on- and off-line, to formulate their own understanding of the topics at hand, as in Vygotsky’s zone of proximal development (van Lier, 1998).

### ***Patterns of Interaction and Change of Roles***

Although during the Tuesday sessions, there existed a bit of shifting in teacher and learner roles, this shift was most apparent during the Thursday COHlab sessions. Here, the architecture of the classroom facilitated equality and symmetry. The teacher easily assumed a learner role and became an “integral participant in (her) students’ computer-mediated communication and learning” (Kern, 1996, p. 108). At times, the students even forgot that the teacher was present.

During the Tuesday sessions, the members of the class sat in a circle, and the instructor tried only to speak if contributing to the discussion. In this way, her agenda was not promoted; rather, the students’ interests took precedence and each person was given voice. Nonetheless, despite the efforts of the teacher to take the back seat, it was more common that the students deferred their questions to the teacher in the traditional classroom setting than when all participants were sitting behind computers. Clearly, as put forth by Zeni (1994), “Computer-mediated communication reshapes social relations” (p. 84), making them perhaps more equal.

### ***Degree of Interaction***

During the first half of the semester, the interactions amongst the class members of German 696d, although rich and thought-provoking, did not extend much beyond the classroom and the COHlab. However, the technological component of the course was intended to facilitate the concept of a classroom without walls, where discussions were to continue to take place at home and on campus, during hours other than those allotted to the class. Quite a few members of the transitional community expressed frustration with regard to the seeming apathy. At one point, the instructor, K. L., posted a comment to the class:

I have noticed, to my disappointment, that you are not getting back to the discussion sessions in the COHlab when we are not meeting there. Several of you have mentioned that you don’t have enough time in 75 minutes to complete the assignments. I had imagined and hoped that people would be finding ways by now to get back to the assignments each week and to complete what had not been done during the Thursday session, so that we can proceed at a steady pace.

One of the students felt similarly frustrated and expressed her concerns about the lack of communication:

I have stayed after class and come in on Fridays to respond to comments, but no one reads those comments, so I feel like I'm writing in the dark. It is very strange indeed that we are supposedly trying to use the computer to facilitate collaboration and interactive communication, but in fact, I feel rather isolated. ... On one occasion, my question to a peer was never answered and I became rather frustrated (A. B.).

This lack of engagement was also evident in the students' hesitation to initiate discussion regarding the course midterm, which was supposed to be co-constructed by the participants of German 696d. The present study will examine the turbulent process of co-construction, implementation, and evaluation of the midterm.

## **DATA COLLECTION**

### ***Research Question***

Following the midterm event, two students opted to analyze the midterm experience as their final project. They were most curious about the different ways that the seven participants perceived this alternative assessment. Therefore, the following research question was developed: How did students in a class on collaborative and non-foundational learning experience a collaboratively-constructed midterm?

### ***Participants***

The participants of this study were the class members of German 696d. The class consisted of six graduate students (one male, five female) and one instructor (female). Three of the students were native speakers of English; the other three were native speakers of other languages (Spanish, German, Turkish).

### ***Procedures***

In order to collect specific data on the reactions of each member toward the process of creating, taking, and evaluating the midterm, four questions were posed to the group:

1. What did you think about the negotiated midterm co-construction?
2. How did you view the midterm, as an exam or assessment? How did you study for it?
3. How did you experience the midterm?
4. How did you view the midterm after the de-briefing session the following Tuesday? How would you rate the midterm on a scale of 1-10 (1-hate; 10-great)?

All participants answered the questions on the class' POLIS site. The instructor wrote down her observations about the entire process separately and sent it only to the two researchers in order not to influence the other class members with her perspective.

In analyzing the data, the researchers used the constant-comparison method, a qualitative analytical technique in which categories are developed from the data "by constantly comparing

each category with other categories to identify their distinctive attributes” (McMillan & Schumacher, 1997, p. 509). The data were coded according to the following themes:

- Format of the Midterm, Voting, and Pairing Up
- Assumptions and Expectations
- Evaluating the Midterm
- The De-Briefing Session

## **DATA EXCERPTS AND ANALYSIS: CO-CONSTRUCTION OF THE MIDTERM**

### ***Format of the Midterm, Voting, and Pairing Up***

*Q 1: What did you think about the negotiated midterm co-construction?*

The class syllabus allotted 100 points for the midterm assessment, which was to be collaboratively developed by all participants within the new non-foundational paradigm of the class. However, due to various reasons, the class was slow in responding to this opportunity until the instructor sent a frustrated message to the class’ POLIS site in order to initiate a discussion:

If there is no concrete suggestion, collaboratively arrived at by the group, as to the form, content, and grading of the midterm, I will assume this responsibility. The fact that the class members were/are hesitant, or passively resistant, or apathetic, or too overworked to have taken any initiative so far, is a matter of great concern to me. What should we do, and how shall this task be organized and accomplished by Thursday, March 4, at 2pm? (K. L.)

This message prompted one of the liveliest discussions that ever occurred in this class. All participants engaged in the discussion and co-construction, albeit with mixed feelings. Based on their educational background and training, up to that point they had viewed midterm exams as assessments which require rigorous studying of course material and individual accountability, produce a high level of anxiety, and consist of content evaluated by the instructor. As exemplified by one student, “It was not so easy for me to break the foundational assumptions immediately and adapt myself to the new paradigm of learning” (M. N.). Therefore, co-constructing the midterm without the leadership of the teacher was a difficult endeavor.

As the instructor later related in her observations, it seemed insurmountable to even get the students to the point where they could start the co-construction:

When we entered the classroom on the day of the preparation of the midterm, I was frustrated. I had written in a general journal I keep that I was “having such a hard time getting my class to come with me to the ‘learning space.’” ... I was at quite a loss at that point as to how to get people to go there, to follow me there, to lead us all there, or whatever. I really was ready to just give up, for a while anyway, and move back into the ‘foundational space.’ ... Then, we got to class. It was a frustrated and pretty negatively inclined K. who entered the room. Suddenly (I think all I said was, “Let’s discuss the reading, but first, what do you want to do about the midterm?,” or something equally as fussily neutral), you all took off and there was an intense and very earnest discussion about various options for the midterm (K. L.).

A factor which might have accounted for the varied reactions to the midterm was encountering the “unknown.” The students did not know what to expect with regard to the content, the format, the degree of collaboration, and the nature of the evaluation. As one student commented, “At first, I had no idea what was going to happen, in terms of the decisions we would come up with, so I was a bit apprehensive. Yet, as we moved forward, each offering our own ideas about what would make for a comprehensive reflection/assessment, I became more and more comfortable with the midterm event” (A. B.).

The class had to decide the format of the midterm, the process of taking the midterm and how the midterm would be evaluated. The students agreed to revisit the questions that had been used as discussion initiators during the first half of the semester and to choose the two questions they liked best. They each posted two questions on the class’ email list and then voted for the best questions. The three “finalists” became the questions for the midterm and everybody was able to see the questions the night before taking the midterm.

While the voting process went smoothly, two issues became the focus of a heated debate in the class: evaluation and assigning pairs for the midterm. The feelings at this moment are best captured in students’ reflections: “When we got to the part about how we would evaluate each other, I admit I got some negative feelings and a first glimpse that we were not all in total agreement as to what this whole thing was going to be about” (S. T.).

There were also much stronger reactions to the problem of assigning a grade: “When the idea first came up that we would peer evaluate our midterm, my hair stood on end! The thought of having my peers juggling percentage points nearly freaked me out, I have to admit” (E. F.). Assigning a grade to one’s peers was not in the realm of imagination. Doing so could jeopardize personal relations as well as potentially affect professional options: “Am I supposed to just let a colleague of mine read my exam and appoint a grade? No way!” (G. H.). The issue was solved when one student had the idea of evaluating the midterm as completed/not completed. Choosing this option, the students circumvented the traditional way of assigning grades, and prevailing feelings of anxiety were lowered.

When the issue of grading each other came up, especially the discussion about how we would assign the 100 points, I felt a bit ill at ease. ... It became really uncomfortable thinking about how I would actually take points off from my peers. So when a few other classmates suggested that everyone automatically receive the 100 points if they showed up, contributed to the best of their ability, (and subsequently evaluated their peers’ dialogue), I was quite relieved” (A. B.).

Focusing more on the process than on the product was another way in which the grading procedure shifted from the foundational to the non-foundational side of the continuum.

The question of how to pair up the teams caused another intense discussion. The options were (a) to be assigned a partner two days before the midterm or (b) to pair up right before the exam. Some participants were in favor of being told who their partner would be beforehand because they could then talk to or prepare with that partner before the exam and eliminate some of the anxiety that this situation created. Others did not want to know who their partners were ahead of time in order not to feel obligated to meet and arrange what to write, but to stay open to all possibilities. The class searched for compromises and, as one participant observed, each side tried to accommodate the other side:

After some more discussion, C. said ok, let's do it (the pairing up) on Thursday, even though I had suggested that nobody should make compromises and do things if there were other ways to do it. I suggested to have, for example, C. and G. in one team, since they would have liked to know their partners beforehand, and the others of us would just wait til Thursday (E. F.).

Finally, the participants decided to pair up right before the midterm by drawing names from a hat. However, one participant felt that the compromise was reached at the expense of the minority: "So, when it came to voting about pairing up or not, and the 'minority' conformed to the 'majority' viewpoint, I was concerned that we had been too forceful in promoting our wishes, to the exclusion of the others' wishes" (A. B.).

### ***Assumptions and Expectations***

*Q 2: How did you view the midterm, as an exam or assessment? How did you study for it?*

When the class met to take the midterm, it became clear that the participants had different assumptions and expectations of what the midterm should be. After the pairs had been chosen randomly, the question came up as to whether books and notes could be used. Following a brief discussion, the students who were present agreed that this was acceptable. For some, the decision felt good; they immediately piled up their books next to their seats. To others, the decision was surprising:

When I came in and E. said that everyone had decided the midterm was "open book," I was very surprised, because this didn't jive with what I had in mind. In other words, I did not expect at all to be spending my time looking things up in our readings. Instead, I really viewed the midterm event as a sharing back and forth of ideas and a collaborative building of an answer, where my principal "resource" would be my partner (A. B.).

In order to be able to work undisturbed, each pair took one of the computer pods in the lab. The instructor viewed the situation from an outsider's perspective: "Passing out gum and taking a pod per pair was also interesting, and signs of both connectedness and the desire to have a space to 'spread out' intellectually and personally as the dyads" (K. L.).

Mixed feelings towards the midterm were reflected in the atmosphere that prevailed in the lab. Some people felt very anxious due to the unfamiliar situation: "The format was new to me, so it was hard for me to create a stress-free environment during the entire exam period. I'm still using the word 'exam,' maybe I should refer to it as a 'practice' or an 'experience'. Although it is difficult to view it that way, I can at least do this verbally" (M. N.). Others experienced the opposite: "I was actually really calm about the whole midterm; I had gotten a lot of vibes in class, during our co-construction of the midterm, which convinced me that I could/should be relaxed" (A. B.).

In the process of writing the midterm, the participants faced several problems which were observed by the instructor:

There seemed to be a bit of frustration among a couple of the pairs now and then, that they were under a time constraint, were having a bit of lag time in getting onto each other's wave lengths for the particular question, etc. But it was not really negative, a sign

more of complete and energetic engagement in the task, under normal classroom time constraints, which can be always frustrating if you're really invested in getting something accomplished (K. L.).

These problems might have been caused by the different assumptions and expectations that the participants had about the midterm. These ranged from creating something new together to being evaluated separately on one's piece of writing. One participant summarized the differing points of view in her question:

Were we searching for the establishment of a TRUTH to come out in our "answers" or were we searching for a way to allow for all of us to go beyond regurgitation of what van Lier, Bruffee, and all the rest were talking about to construct and build our own truths and understandings by applying what the larger discourse community of scholars say about the things we are interested in? (S. T.)

She continued in describing her perception of the midterm: "I viewed the midterm as an extremely cool chance to revisit some of the stuff we'd been working within our little boundary community.... The midterm would be a great chance for us to really do the dialoguing thing in a concentrated one-one way that would lead to some great 'working off of each other'" (S. T.).

While S. T. wanted to collaboratively create a new understanding of the concepts that had been discussed in class, M. N. had a very contrasting assumption about the midterm: "I thought that my piece of work was going to be evaluated separately. I thought we had to discuss with one another to create our own pieces" (M. N.). These differing opinions made it difficult to work together as both of their comments revealed after the midterm. S. T. attempted to get her partner to collaborate with her: "During the midterm, my partner didn't really respond to the ideas I was putting forth in regard to the question we had been assigned, nor with respect to my responses to what she posted. ... I really wanted ... her to give me her opinion about what I was thinking, to give me some feedback about my interaction with the text." M. N. was also aware of the difficulties during the midterm: "I felt that there was a miscommunication or lack of communication about how we are going to proceed throughout the exam. In other words, we did not share the common goals ... or we could not make the group goals clear to each other."

In contrast, another pair experienced a high level of contingency and symmetry in their interactions: "E. was a fantastic partner. We clicked right away, in terms of our preconceptions about the midterm and our vision regarding our way of handling the back and forth flow of postings and responses" (A. B.). E. F. was equally enthusiastic: "A. and I were partners and—to put it in very simple terms: WE HAD A BLAST! We really hit it off! ... It was a most amazing experience. We were so much on one page that we asked each other the same questions at times without knowing (until we posted them)."

The unshared assumptions concerning the tasks were also reflected by the way participants prepared for the midterm. Several students approached the task by re-reading articles and excerpting them, while others made the conscious choice not to take notes in order not to hinder the construction of a common product: "I deliberately decided not to take any notes, because I wanted to be free from that in order to be able to respond to my partner's ideas. I thought if I wrote something down, I would feel obligated to use that in the midterm and then get more stuck on my own thoughts instead of creating something new with my partner" (E. F.).

Thus, the perception of the goals of the writing process had an influence on the participants' way of preparation.

Furthermore, the differences in preparation might have resulted from the participants' position on the foundational/non-foundational continuum. Those who viewed the concept of a midterm in a more traditional way studied similarly to the way they would have for a traditional exam. Those who had had some exposure to alternative classroom activities and who had a personality which allowed for higher tolerance of ambiguity and risk-taking, were thus more open to non-foundational thinking. These individuals approached their studying differently. They tried to break away from those patterns, but caught themselves tempted to go back to traditional ways of preparing: "I saw the midterm as 'just another Thursday activity.' I wanted to see it that way, and at times I caught myself thinking, 'maybe you should write something down, maybe do something more ...' but then I decided not to do this and reminded myself that it was like any other Thursday" (E. F.). Feeling the same kinds of tensions and insecurities, A. B. admitted, "At times, I wondered if I was being irresponsible and overly confident (in not studying in the traditional sense)."

### ***Evaluating the Midterm***

#### *Q 3: How did you experience the midterm?*

The next step after taking the midterm was the evaluation. The class had agreed to evaluate each other's responses in differently combined pairs. The writing process, in both the midterm and the evaluation, was also a matter of concern for some participants. In a non-foundational environment the process of writing and composing is valued higher than the product, a finished composition. However, not all participants were content with this notion:

I wasn't happy with what I wrote in the exam. It (the text) didn't flow, nor did I as I was writing it. ... I don't value the product, the text I created in the COHlab with my partner as much as I do what I produced (the evaluation of another pair) at home over time by myself. I imagine independent raters would agree with this assessment of the writing quality in each text, too (C. D.).

In contrast to this, the instructor elaborated on her view of the relationship between process and product:

When I read C.'s evaluation of the midterm ... I was a bit surprised. I guess since I was reading everything, and very focused on the process, but also very pleased by most aspects of the products, I was seeing a higher level of quality (and even quantity) of response that I think would ever have been produced in a more foundationally approached midterm. So, I have a mismatch with C.'s expressed evaluation of the process and its products. ... I also have a bias; I have always firmly believed that, at the graduate level, the process of getting ready for, thinking about, and synthesizing ideas for an exam of any kind is equal to, or actually much more important than, the actual product of what is written or any particular aspect of an oral. The overall impression, combined with the process in all its details, are what I have, for many years, found to be the most important aspect of exams at this level (K. L.).

These different perspectives might have resulted from different positions of the participants on the continuum between foundational and non-foundational learning and teaching. In reflecting on her own growth, G. H. wrote, “The total experience of the test was a positive one for me, once I saw what I got out of it. I think, for me, it was a first step toward moving away from the traditional. Sometimes, it is necessary to take a leap and not a step. To [learn], one has to take risks.” A. offered another perspective, as she related her excitement about breaking the barriers of traditional testing: “This was one of the first times the notion of non-foundational ways of teaching really hit me. It was like, ‘Wow! We are totally moving away from the confining way of assessing, and looking much more freely at the process, vs. always focusing on the product.’” For the above reasons, the task at hand was a bigger “leap” for some than for others.

The evaluation procedure also engendered both positive feelings and feelings of insecurity. One of the positive remarks underlined the learning that took place while writing and evaluating the responses: “We also evaluated our peers’ dialogue over the weekend and I liked that part, too. It was wonderful to see that somebody else could make sense out of what A. and I had written and I was able to follow and learn from another exciting discussion by another team” (E. F.). The insecurity felt during this process was expressed by G. H.: “It wasn’t over though. Now the fate of someone else was in my hands. I thought that I would not be confident enough to evaluate properly the dialogue of other class colleagues.”

### ***The De-Briefing Session***

*Q 4: How did you view the midterm after the de-briefing session the following Tuesday? How would you rate the midterm on a scale of 1-10 (1-hate; 10-great)?*

In the week following the midterm “event,” as it came to be called by several participants, the class engaged in a de-briefing in which everyone shared their feelings and concerns regarding the “exam.” In a later reflection, the instructor gave her overall impression of the situation: “I still had the feeling that a few folks, if not most, had trouble equating our process with their other experiences in graduate classes as midterms. That’s OK. I think it underscores the idea that this was indeed a non-foundational event” (K. L.). The open exchange of feelings was appreciated by all: “I was impressed with everyone’s candor and ability to express both personal frustrations and positive moments” (A. B.). A strong group feeling developed as well: “I also felt that we were a community since we listened to one another and shared our feelings. The de-briefing session was definitely a valuable and positive experience for me” (M. N.).

In the de-briefing, the instructor asked the class to rate the midterm on a scale from 1 (I hated it) to 10 (I loved it) and to explain whether the participants had seen the midterm as an exam, an assessment, or something else. In terms of ratings on a scale, the midterm received the number 10 twice, one 8, one 6, and the number 5 two times (with one participant splitting up the actual midterm in the COHlab for 5 points and the evaluation at home for 8 points). This wide distribution of points on the scale caused some surprise with the people that had rated it a ten because they had imagined that everybody had experienced the midterm in a positive manner.

The same reaction occurred when most of the participants stated that they saw the midterm as an exam or assessment. People who felt confident and comfortable with regard to the task, as well as people who felt very anxious about the midterm, considered it an exam or assessment. Only the two participants who rated it a ten felt differently: “I did not consider the

midterm an exam or assessment, with all of the stress that comes with those terms” (A. B.); “(I)t was just another Thursday activity” (E. F.).

After the de-briefing, the bubbling enthusiasm of some participants was dampened by some criticism:

I was a little uncomfortable (and still am) with the uncritical enthusiasm. Computers, collaborative learning, and critical pedagogy are not a panacea for all learners in all situations all of the time. They do offer exciting possibilities, but we must examine each situation carefully and critically before endorsing the products or processes, particularly given the stakes: financial, emotional, cognitive, etc. (C. D.).

The discussion about the midterm event did not only elicit a critical reaction of this participant, it also changed the perspective of the more enthusiastic participants. As one of them relates: “A posteriori I’d rate the midterm at a 9, because I realized how decisive it is to work with someone who is on the same wavelength. Basically, the whole concept stands or falls with this factor. If A. and I hadn’t hit it off, I might have seen the entire event in a totally different light” (E. F.).

Another participant praised the fact that the de-briefing discussion had put everything in a more realistic setting and brought her down to earth: “It allowed me to understand how difficult moving along this continuum from foundational to non-foundational really was. It also gave me a realistic glimpse of the natural obstacles I will likely face when I try to implement these kinds of philosophies in my classroom, as a result of such a radical transition” (A. B.).

It was apparent that each person’s perception changed by listening to their peers. There were elements of surprise in learning that the class had experienced the task so disparately as well as elements of discomfort about uncritical enthusiasm relating to computers and collaborative learning. Students also spoke of new understandings about working in a non-foundational environment and about the problems involved in implementing non-foundational paradigms in a typical classroom.

The openness and honesty of the de-briefing discussion resulted in changed perspectives of the event, which led to a renewed level of energy and interaction in the class. The students began taking more initiative and ownership in the designing of their class. They proposed changes in the syllabus (e.g., that a particular reading be postponed for another week so that discussion about another topic could be continued). Students also started discussions on POLIS and on the class’ listserv without the teacher’s initiative. Another example of the students’ engaging in the learning and teaching process involved the idea of creating a class Web page for the course final exam. Indeed, the participants were able to sustain the excitement and vigor that had characterized the entire process of co-constructing the midterm, for the remainder of the semester.

## **CONCLUSION**

Based on the data that was collected, it is apparent that the seven participants in this class experienced the midterm event in very different ways. This divergent experience was caused by two main factors: (1) The students in this class were largely educated in a traditional mindset. Thus, it was a true challenge to think within a completely new paradigm; their prior training also affected the way they approached the “new” assessment type. (2) They seemed to be at different positions and comfort levels along the foundational/non-foundational continuum. Hence, it was

difficult for the group as a whole to move together to “the other side,” notably with the existence of so many unknowns.

In the de-briefing, despite the mixed feelings, every member shared some sort of growth with regard to their movement towards a non-traditional, non-foundational way of thinking, knowing, teaching, and learning. In the following quote, G. H. expressed her changed state of mind: “It turned out to be one of my best testing experiences yet. ... It was a great learning experience for me. ... I’d do it again despite all I went through.” Two students summarized their overall positive perceptions of the midterm: “It was a great experience and I’m glad I was part of that ‘experiment’ ” (E. F.); “I had the best time with this midterm. ... I have never had so much fun, nor been so enthusiastic about a test, since after all, at least on paper, this was a ‘midterm’ ” (A. B.).

In conclusion, practicing collaborative, non-foundational learning and teaching with students whose position on the continuum is incongruent with the instructor’s, is an immensely arduous endeavor. For the instructor, at times, it was like pulling teeth. Still, as reflected by the students’ overall growth, it seems fair to say that the effort was well worth the obstacles. The instructor’s final reflections support the claim that “the pain is worth the gain.”

In sum, it was a delightful and very successful process, I thought. I consider it the turning point in our class and in my own understanding of what interdependence can mean in a classroom setting. I still feel the energy when I think about it. It remains in my thoughts, in affective as well as in cognitive terms, as a key event, as a ‘top-of-the-mountain’ experience, and as one of the most important sets of events in my long and checkered career as an educator and learner. Mainly I feel thankful that everyone jumped in, took the risks, and made it happen. You all continue to make it happen, too (K. L.).

### **PEDAGOGICAL IMPLICATIONS**

This study demonstrated the difficulty inherent in shifting from an individualistic mindset, in which students are solely accountable for their own learning and work, to a collaborative mindset, wherein students cooperate and share responsibility and accountability for each other’s learning. Although students might be slow to accept the new responsibilities granted to them, as traditional education most often requires students to follow the teacher’s lead, enormous benefits can be gained from empowering students and integrating collaborative activities into the classroom. Students become more involved in their own learning due to the fact that they have a “say” in what and how they are studying. In addition, they gain valuable social and team-work skills which are indispensable in the workplace.

Encouraged by the findings of this study, the researchers have applied the concepts of collaboration and student-centeredness in their own German and French foreign language classrooms. As part of the course design, students “discuss” current events or course-related topics in real-time, using computer-mediated communication. In addition to building upon each other’s ideas during these computerized discussions, the students also have the opportunity to impact the course curriculum.

In order to facilitate a successful transition from teacher-centered to student-centered learning and teaching, the instructor must be willing to let go of some authority and control, while the students must embrace the new way of learning and knowing. The paradigm shift outlined above can be applied to many different academic subject matters by seeking out ways to

involve the students more in decision making processes, course and curriculum design, and by integrating collaborative activities in the classroom.

### ACKNOWLEDGMENTS

The authors wish to thank the members of Planet Xeno for an eye-opening and inspirational semester.

### REFERENCES

- Blake, R. J. (1998). The role of technology in second language learning. In H. Byrnes (Ed.), *Learning foreign and second languages: Perspectives in research and scholarship* (pp. 209-237). New York: Modern Language Association.
- Bohm, D. (1996). On dialogue. In E. Nichol (Ed.), *On dialogue* (pp. 6-47). London: Routledge.
- Bruffee, K. A. (1993). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore: Johns Hopkins University Press.
- Duin, A. H. & Hansen, C. (1994). Reading and writing on computer networks as social construction and social interaction. In C. L. Selfe & S. Hilligoss (Eds.), *Literacy and computers: The complications of teaching and learning with technology* (pp. 89-112). New York: Modern Language Association.
- Jackson, S. (1996-2001). POLIS- Project for On-Line Instructional Support [Computer Software]. Tucson, AZ: Arizona Board of Regents.  
Available: <http://www.u.arizona.edu/ic/edtech/swp/polisintro.html>
- Johnson, F., Delarche, M. & Marshall, N. (1995). The learner as course planner/director. *The Journal of Kanda University of International Studies* 7, 1-44.
- Kern, R. (1996). Computer-mediated communication: Using e-mail exchanges to explore personal histories in two cultures. In M. Warschauer (Ed.), *Telecollaboration in foreign language learning* (pp. 105-119). Manoa, Hawai'i: Second Language Teaching & Curriculum Center.
- McMillan, J. H. & Schumacher, S. (1997). *Research in education: A conceptual introduction*. (4<sup>th</sup> ed.). New York: Longman Inc.
- Maher, F. A. & Tetreault, M. K. T. (1994). *The feminist classroom*. New York: Basic Books.
- Nicenet [Computer Software]. (1996). Available: <http://www.nicenet.org/>
- Saavedra, R., Earley, P.C. & van Dyne, L. (1993). Complex interdependence in task-performing groups. *Journal of Applied Psychology*, 78, 61-72.
- Tuman, M. C. (1997). Norton Connect.Net [Computer Software]. Ann Arbor, MI: Ann Arbor Software. Available: <http://www.wwnorton.com/connect.html>
- van Lier, L. (1998). Constraints and resources in classroom talk: Issues of equality and symmetry. In H. Byrnes (Ed.), *Learning foreign and second languages: Perspectives in research and scholarship* (pp. 157-182). New York: Modern Language Association.
- Zeni, J. (1994). Literacy, technology, and teacher education. In C. L. Selfe & S. Hilligoss (Eds.), *Literacy and computers: The complications of teaching and learning with technology* (pp. 76-86). New York: Modern Language Association.