Experiencing and Mapping
in Teacher Education

by

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ABSTRACT

Three teacher education tasks are analyzed using Bateson's "levels of learning" and the distinction between *reference experiences* and *cognitive maps* (Dilts, l994). The tasks were 1) writing a risk log of classroom innovations, 2) writing articles, and 3) doing public presentations. Student feedback indicated perceived shifts in behaviors, beliefs, and identities through both active tasking (reference experiences) and their ongoing dynamic "explanations" (cognitive mapping). The results and activities are then discussed in relation to Freeman's (1992, 1994, 1995) concept of the socialization of teachers into professional discourse and the value of communities of explanation toward continual teacher development. (97 words)

Biographical note:

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(48 words).

Introduction

This article deals with research done with a small group of graduate students that involved doing three tasks that required new behaviors and encouraged shifts in beliefs and identities. The tasks were: 1) writing a risk log of small classroom innovations, 2) writing informal methodology articles for other teachers, and 3) doing presentations open to the public. In Part I, two heuristic concepts, Bateson's levels of learning and the distinction between reference experiences and cognitive maps, are initially used to frame the tasks. Part II describes the tasks in more detail and provides results based upon a questionnaire answered by the students. Part III discusses the research using ideas principally from Freeman's ongoing work on the socialization of teachers into professional discourse and Lave and Wenger's (l991) concept of legitimate peripheral participation in communities of practice.

Fundamental to this article is an idea expressed by Lave and Wenger (l991) and reformulated by Freeman that

> . . . learning comes about through increasing participation in a particular social practice which creates opportunities to navigate the system of relationships and identities of which it is composed. Being allowed to take part in the practice, and being recognized as doing so, permits a person to construct an identity as someone who can legitimately do the practice. (Freeman l994:12)
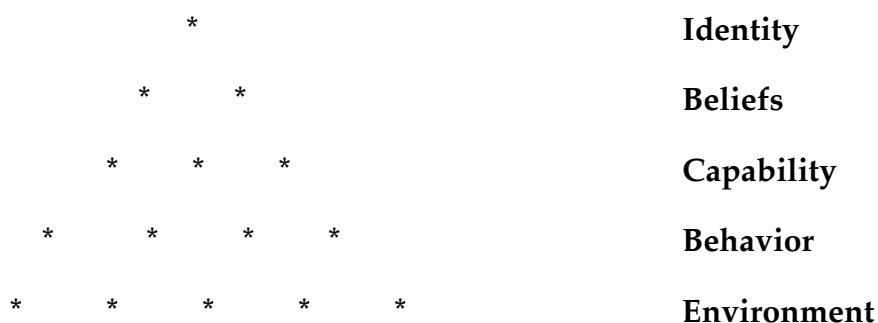
The tasks in this research seek to increase this participation of teachers in communities of explanation (Freeman, l995) devoted to developing themselves, their work, and their profession such that they create resilient "identity kits" (Gee, l990) as teachers open to change and continual development.

Tightly intertwined with teacher identity are teacher beliefs, another rather messy construct (Pajares, l992). This article also seeks to deal with the nature and process of belief change itself.

Part I: Two Heuristic Concepts

1. Levels of Learning

Anthropologist Gregory Bateson identified four basic levels of individual learning and change in a given context (place and time) - each level more abstract than the level below it; and the higher the level, the more impact on the individual (Dilts, l994). These levels roughly correspond to:

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              *                          Identity

           *     *                       Beliefs

        *     *     *                     Capability

     *     *     *     *                   Behavior

  *     *     *     *     *               Environment
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Traditional teacher education has dealt with three levels of learning: **what** teachers are supposed to do, **when and where**, and the **"how"** level of skills (such as management skills, rapport skills, sequencing skills, materials creation, and adjustment)—all three levels often being referred to as "methodology". More recently teacher researchers have turned energy to teacher **beliefs** (Pajares l992, l993; Richards & Lockhart, l994) and teacher **identity** (Gee, l990; Lave and Wenger, l991). Another way to conceptualize these levels is to look at the questions that are answered by each level:

a. Who I **A**m - Identity (Mission and Purpose)   Who am I?

b. My **B**elief System - Values and Meanings Why is it important?

c. My **C**apabilities - Strategies and States   How do I do it?

d. What I **D**o, Have **D**one - Specific Behaviors   What do I do?

e. My **E**nvironment - External Constraints   Where? When?

For teachers, some answers might resemble the following:

               *   I am (not) a teacher / researcher / presenter.   Identity

         *   *   It's good (bad) to correct, be friendly, etc.   Beliefs

      *   *   *   I (don't) know how to teach writing, etc.   Capability

    *   *   *   * I (don't) do what the textbook says.   Behavior

*   *   *   *   * My job at school (never) ends at 5 PM.   Environment

A teacher educator could use Bateson's levels of learning to explore a variety of aspects of teaching and teacher education. For our teaching we might ask, "How much of what I do with my students applies to each of these levels?" One could look at the potential of different behavioral tasks to filter up and change beliefs -- not all tasks are equal. One could look at possible conflicts between beliefs and behaviors. One could also recognize how new explanations challenge our practice. In part III I will take up again the idea of the directional flow through these levels.

2. Reference Experiencing and Cognitive Map

Another useful distinction is the difference between reference experiences and cognitive maps. Consider for a moment the following learning sequence:

       1. unconsciously incompetent

       2. consciously incompetent

       3. consciously competent

       4. unconsciously competent

If you have never seen this sequence it may be a rather vague **cognitive map** of something. I could tell you that a lot of learning goes through this sequence, that first we are 1, then 2, then 3, and finally 4. The people to whom it makes most sense are those who are probably already applying their **reference experiences** to this map, checking with things that they have experienced to see if this map might make sense.

If I supply a common reference experience for you to tie to this sequence then it becomes easier to grasp. For example:

> This is basically how a lot of people learn how to drive. At first children don't know they don't know how to drive (1. unconsciously incompetent) and when they jump behind a steering wheel and try to drive, they realize they don't know how (2. consciously incompetent). Later, as teenagers, they learn how to drive but for a while have to think about each step (3. consciously competent), and only after driving for a few years can they do it without thinking so much (4. unconsciously competent).

This cognitive map now has a reference experience tied to it for all the readers who have learned how to drive. It is now much more meaningful, but not necessarily for people who have not learned how to drive. If I could give you a real reference experience right now for understanding this map, like learning to juggle, that would be even more powerful than a remembered one. You may also notice, to the extent that you tried to make sense of the map (the four steps) and then actually did make sense of it, that you have just had a reference experience of the difference between cognitive maps and reference experiences.

For my graduate students, their cognitive mapmaking (explanations to other teachers) is first driven by reference experiences in the classroom based upon risks they take. Notice that writing articles about their risks and presenting the ideas to groups of teachers are reference experiences of a different kind; they are reference experiences of producing and refining cognitive maps. In reference to Bateson's levels of learning, we might hypothesize that certain key practical behaviors in classrooms (reference experiences like taking risks) can create movement in which higher-level behavioral tasks can occur (explanations and demonstrations for other teachers) that get students to refine their articulation, i.e. their mapmaking, at the belief and identity levels.

In short, the three tasks potentially allow teachers to have reference experiences of doing and of making maps for articulation at the same time. The reference experience of taking a risk in a classroom is at a different logical level than the reference experience of an explanation or demonstration of that same risk. Since we cannot all be in each other's first-level experiences, we can learn from the second-level experiences (explanations), especially when they are demonstrated so that we can have a first-level taste-testing reference experience along with the map. This experience of interactively sharing and adapting cognitive maps potentially allows us to go to higher levels of thinking. The Vygotskian (l934/1962) perspective is that most of this increased cognitive complexity comes about through social interaction. By stimulating this interaction and creating ways for easier access to professional practice and participation, we may allow teachers to more easily discover and create performative behaviors, beliefs, and identities and, most importantly, encourage continual development through continual participation.

Part II

Rationale of the Method

The three tasks (keeping a risk log, writing articles, and making presentations) were originally aimed at encouraging beliefs and identities qua teachers who are continually developing. My goal was to convince students that they had a lot to offer other teachers and that they could perceive themselves as valuable contributors to the profession. I also reasoned that if they took on the role of trainers in their own schools and environments they would have a much bigger impact on the educational system than if they only kept their magic in their own classrooms.

Teaching others is a learning intensifier. The well-known Chinese proverb that goes "Tell me and I'll forget, show me and I may remember, involve me and I'll understand" might be amended to "Let me teach and I'll more fully learn." It is through this "teaching" others that I hoped my graduate students would increase their own understanding of what they were doing.

The Subjects

The graduate students in this study were all full-time high school teachers going to graduate school three hours an evening four times a week. The average age of the ten students was 34, with at least 10 years of teaching experience each. Thus, encouraging them to take on the identity of presenters and writers seemed logical, especially in Japanese culture, where such things are expected of older, more experienced, members of society.

The three tasks in more detail

1. Students were assigned the task of periodically taking small risks in their classes and of writing a risk log about their findings, briefly stating what they did and what the

reactions of their students were. A risk could be something as simple as turning on some background music for a few minutes or telling a story, or even something as major for many Japanese teachers as using pair work. These risks could be seen as a gentle preliminary form of action research that later might generate material for the other two tasks: the presentations and articles.

It was stressed that they were to get some sort of feedback from their students on the risks they were taking, feedback that they could actually report to others. Most of them did this with questionnaires and some got quite involved in statistics.

2. Students also gave presentations at mini-conferences open to the public. We held the conference once during the first year and then once a semester, or twice a year, for the next two years. Their presentations were supposed to be based on actual new things that they were trying out in their classes and for which they could report some sort of feedback findings from their students. Presentations were only 30 minutes in length and they were supposed to involve the audience interactively, demonstrating whatever it was they wanted the audience to learn. Students had time to try out their presentations and parts of them in the classes preceding the conference date. Each student was videotaped in the practice sessions for self-viewing at home and feedback was given in class by participants.[1] (See Note 1 and Appendix 1 for organizational features of the mini-conferences.)

3. The third task involved writing short teaching-related articles for teachers like themselves based on their risks and their presentations, with a view toward submitting them to various teaching publications. This will be described further under Results.

Questionnaire

At the end of the third year (January l995), a questionnaire (Appendix 2) was sent to all sixteen students who had been in my courses the last three years. Ten of the sixteen returned the questionnaires.[2] The open-ended questions asked for their evaluation of the three tasks, how much they did them, whether or not they were worthwhile, and if they had any suggestions for improving them. Questions were also asked following Bateson's levels of learning, specifically, about any changes in behavior, skills, beliefs, and identity that they noticed as a result of these three activities.

RESULTS

The students overwhelmingly supported the three tasks and provided very valuable feedback to the teacher educator. Of the ten students, five had graduated a year before the questionnaire was filled out, four had just finished all their course work (and grades were in), and one had just finished his first year.

The risk logging

Six of the ten respondents said they did the risk log more than a semester, while all of them mentioned that it was a good idea. Those that didn't do it longer regretted not doing it more.

The advantages they cited were that it

- made them experiment more in their classes,

- taught them how to get student feedback,

- made them more attuned to their students' responses,

- allowed them to collect a lot of teaching ideas to share with   other teachers,

- allowed them to share successes with the trainer.

One mentioned "I felt happy when the trainer made a lot of comments in my risk log." This, I feel, points toward the importance of having a supportive audience, interactive feedback, and potential collaboration for one's risk-taking.

One student stressed that before doing the log she had thought innovation meant *changing everything*. Through doing small risks for the risk log she realized she could experiment on a very small part of her teaching and observe student responses. It could be that many teachers like her may be kept from innovating by assuming that innovation is an "all or nothing" endeavor. Risk-logging may be a gentle way of introducing such teachers to small changes that might lead to more formal action research. However, even the small changes are apparently quite stimulating to teachers (and teacher educators) who have settled into routines.

Finding time in their prescribed curriculum and busy schedule to do something was about the only negative point, even though they were told to start with very simple risks, like putting on background music for a few minutes. It could be that they still believed that risks took a lot of time, even though they had done some that took very little time. Some beliefs die hard even when faced with reference experiences to the contrary. One teacher commented on how risk logging made him realize how monotonous his normal classes were.

Students suggested that the teacher give a list of possible small risks to get future students started. Again, it seems that a big problem was just thinking of things to do. Another suggested summarizing all the risk logs and making a kind of resource book for other high school teachers. Despite the time involved, most students suggested that future MA students do the risk logging more often and share them more with one another.

Articles

The ten students reported they wrote a total of 38 articles, two to five pages long, at the end of the semesters. I read the articles and commented on them, suggesting revisions and a possible place to send them when I thought there was a possibility of getting them published after revisions. Students understood that I would look at drafts again and further advise them on submissions. Only ten of the 38 were actually submitted, with eight being accepted and published. The eight articles were by five of the ten students.

Several comments showed what I think are fine indications of joining the "community of participation" (Freeman l995). One said " If you write your own article, you will read another person's much better." Another mentioned the energy generated by being in control of the process: "I spent more time and energy on this assignment than on other relatively less creative assignments. This is because this assignment is more fruitful and relevant to me." Three students said they "definitely" planned to write more, four responded "I think so", and three responded "maybe".

When asked "What would make it easier for you to write articles?" most said again "more time". Many said they needed more suggested topics and titles. As with risks, thinking up topics for articles on their own was difficult. A few said they just needed to read more.

When asked how useful writing the articles were, most responded in support of the task. They provided evidence that articulation does promote development. One said "I understood the topic deeper. I got to relearn some of the things I learned in the course." Others mentioned they needed such a push (the assignment) to get their ideas out and that it gave them a chance to sort out and organize their ideas.

On the negative side one wrote "It made me realize how little I have to mention." Thus, while I was trying to get them to do tasks that would advance self-esteem, apparently without proper preparation and guidance there is the danger that the tasks can backfire and lower self-esteem.

When asked what suggestions they had for improving the assignment, several mentioned they needed to know more about how to write an article. They wanted a model and more guidance from me. Those who did consult with me mentioned this helped a lot.

Oral Presentations

Public oral presentations were the biggest risks and thus had the biggest impact upon students. Audiences usually numbered between 25 and 50 teachers, natives and non-natives, teaching at many different levels. To give a presentation in English to other teachers meant a lot to students. Several mentioned it greatly increased confidence in themselves:

> I found that talking in public is fun if I'm prepared well.

> This experience gave me confidence in myself since I now know that I can present even if I am not prepared at the time of decision.

> The more you do it, the better presenter you become.

The experience also had an influence on classroom teaching: "It contributes greatly to the improvement of our daily way of teaching. . . . my attitudes to my students, my way of teaching, greatly improved."

On the negative side, several students stated that the nervousness, the doubts about whether they were good enough, and the great amount of time they consequently spent on the task, were its biggest drawbacks. In the words of one student, "It requires a great deal of preparation, data collection, practice, time, and energy. I remember I neglected other subjects at Grad School for at least a month before the presentations."

Five of the ten said they definitely planned to give more presentations in the future. When asked what would keep them from giving more presentations, time and opportunity to do them were listed most often. Asked if they would give a presentation at the next university mini-conference, four gave possible topics, four said maybe (a polite "no thank you" in Japan), and two didn't respond.

All students suggested that the mini-conferences be continued. Two suggested having only one presentation a year instead of two. One advised making the students decide what their topic would be early, so they would have more time to experiment with it in their classes.

Indications of shifts in beliefs and identities
The questions related to Bateson's levels of learning received the most interesting responses. Behavioral changes can be interpreted as possibly indicative of belief and identity shifts either made or on their way to being made. The answers show that they

will naturally mix Bateson's levels holistically, at times expressing what, how, or why they do what they do. Below are some selected student responses to questions 22 and 23; my interpretations of what I see as implied belief and identity level correlates are given in italics and within parentheses.

Question 22. Do you think that any of your teaching behaviors has changed by doing these three activities (articles, presentations, risk logs)?

Yes, very much. Now I love to try new things in classes. I listen to students more. And I don't care about making mistakes any more. [*Underlying beliefs: Risks and innovations are good. Students can teach me. Mistakes are OK.*]

Yes, I feel myself more relaxed in teaching. I come to put importance in keeping the students relaxed. [*My feelings and their feelings and affective states are important for learning.*]

I noticed in my mind the difference of my philosophy of teaching and learning: that is, teachers and students learn together. If I really think teachers can learn from students, they will also learn a lot from us. [*Belief in the collaboration between students and teachers and that both can simultaneously learn.*]

In writing my article, I learned the idea of learning from students. [*My students' input is valuable.*]

I always keep it in mind where to stand, how to pause, etc. I believe that presenting to teachers has widened my teaching skills. [*My body language and the way I speak has an impact on my students.*]

I'm more confident when managing the class, more organized and systematic when planning for a class, recycling successful activities. [*I am an effective teacher. Recycling is valuable.*]

Question 23. Did you learn any useful skills through doing these three activities (articles, presentations, risk logs)?

Yes, very much. Shadowing, jigsaw reading, metaphors, and more. [*Variety is important.*]

Yes, having a positive feeling. [*State is important*]

I felt what is most important for language teachers is to share the problems students (maybe we) have. [*Collaborative learning and teaching is good.*]

In presentations I learned how to have pair-works. I try to use this sometimes in my class. Having students write a log is a very good idea. I want to use it in my English conversation class next year. [*Pair work and feedback from students are valuable.*]

I sometimes use music to lower the students' affective filters, and try to connect the vocabulary with images; those were acquired through the activities. Above all I've learned much about teaching, that is, how to sympathize with students, the teaching principles, through your lessons. [*Affective side of learning is important.*]

Easier ways to show the procedure of activities by demonstrating what I want, actually doing it.

[*Demonstrations work better than telling students how.*]

I cannot enumerate particular skills here, but I feel I have become a better writer and presenter. [*My identity has been reinforced.*]

Questions 24 and 25 ask specifically about belief and identity shifts. Student answers show evidence of remapping and conflict (collision in Freeman's terms) as they articulate and reflect upon their own shifts in beliefs and identities. One evident area of reconsideration was their beliefs about errors (their students' and their own):

. . . I am more willing to try more new things in my class. I want my students to be aware that mistakes are nothing to be ashamed of. (They should be ashamed of themselves if they don't try.)

[These experiences have]...broadened my mind in teaching in the daily classrooms. For example, I feel confident, I'm always trying to be innovative, I'm trying to be emphatic to my students, saying "Don't worry about mistakes. They are needed when you are progressing." etc.

Some students also showed evidence of ongoing sociocognitive conflict (Bell, Grossen, Perret-Clermont, l985; Murphey, l989) as they entertained conflicting beliefs or views which articulation made conscious to them. Regardless as to how they are resolved, if ever, I see such conflicts as the essence of teacher development, as it shows an opening up of a teacher's belief system to other possible ways of seeing the world.

Accuracy can never be attained without making mistakes. (At the same time, however, one cannot correct one's efforts unless one realizes that they are errors.)

Your style of writing and presentation is different from mine. You think it is important to consider the affective side of readers or listeners. I tend to be more logical and accurate than persuasive and emotionally pleasing. But this difference made me think a lot.

One teacher commented explicitly about the value of talking about teaching and its impact on classroom practice:

It seems that the more you talk about your ideas about teaching, the more confident you will get when actually teaching.

As for their possible identity as teacher-trainers, a few showed evidence of taking on this role at least partially:

I am already playing the role of a trainer at my school, though not officially. There is not such a position in my school. However, there are five younger teachers who often come to me for advice. It is a shame, though, that their questions are mostly concerned with grammar, not how to improve their whole teaching stance.

I cooperate with other teachers and change our daily lessons. In that way I try to talk about what I've learned with my colleagues. We're planning to observe each other's lessons, or to videotape our lessons. . . . I'll try to encourage my colleagues to read and write articles, make presentations and write risk logs.

I believe I am capable of helping other teachers by sharing ideas. The three activities gave me practical tips about how to share ideas. Especially I liked the way you organized presentations, that is, the way you maintained a friendly and open atmosphere. The presentations where I spoke will be a model when I plan one.

One hinted that changing identities might also bring problems with it:

I feel that my colleagues regard me to some extent above them since I succeeded in graduating from the MA course.

One recognized that her understanding of the tasks themselves was changing through answering the questions and requested a continuation of our community of explanation:

I think I understand your idea now better than before. I would like to be a TT as far as I can. It would be nice if we (people who graduated) can see you regularly (not too often, of course) and talk about teaching classes. Without being encouraged by someone like you, we are likely to spend ordinary lives without thinking of articles or presentations.

Question 25, asking to what extent they felt they had become teacher trainers, may have been somewhat culturally inappropriate on my part. Teachers without official superior position in the Japanese school system are "supposed" to remain part of the group. Thus, there is justifiable caution about being ostracized from the group if they show too much ambition or initiative by calling themselves "teacher trainers" as, indeed, some of their comments show:

. . . if I regard myself as a teacher trainer, I am expected to be the person who can encourage other teachers to be confident enough to share and challenge risks with me. For that purpose, I should not stand out but rather seek for the collaborative ways of teaching with other teachers.

I don't think I can be a teacher trainer. However, I hope I can do something with my colleagues to change the present situation of English education.

One of my biggest dreams is to become a teacher trainer who understands the difficulty high school teachers face in everyday classes. I enjoy giving presentations, but I still feel awkward to say something about other teachers' matters in everyday life. So, maybe this is where I should start. Learn from other teachers and share my ideas with them.

The above is an example of how my students can adjust my map. I now see the term "teacher trainer", at least for them, is too heavily laden with unidirectional pressure. A term like "teacher collaborator" may be less threatening and a more accurate description when we are in fact learning from each other (Edge, 1992).

Evidence of professionalism

Aside from the data above, a few other indications point toward teacher interest in continual development. After graduation, the first group of students in l994 decided to have monthly meetings to discuss reading selections related to teaching. This would appear to be a move to preserve a "community of explanation" (Freeman l995) that they formed as students and wished to see continued. Four graduates are auditing my course this year and one is committed to giving a presentation at our semesterly mini-conference. Five graduates recently enrolled in an 18-day NLP practitioner course.

Two graduates gave a presentation at the national language teachers convention in November of l994, and one 47 year old student has received a Fullbright scholarship to do a second MA in America.

All of this tells me that they are interested in remaining active, searching for other perspectives and negotiating the direction of their teaching. While they had to have this attitude to a certain extent in the first place to return to graduate school mid-career, I contend that the three tasks, by encouraging proactive identities and beliefs and giving them ways to research and articulate in personally meaningful ways, provided avenues for them to do this more completely. Granted there are also certain teacher educator beliefs and characteristics which may set the scene for the successful realization of these three tasks; however, these go beyond the scope of this article.

Freeman (l994) notes that students also need encouragement to sustain the energy and innovation that they may have displayed at graduate school:

> We need to find ways to support teacher-learners' allegiances to ways of interpreting their worlds which differ from the norms with which they find themselves working on a daily basis. If these new allegiances are not supported, the status-quo will inevitably take over. . . We must develop ways to build and maintain communities of teacher-learners in which they can explain themselves to like-minded colleagues and thus, over time, they can articulate their evolving practice. (p. 15)

This participation in a larger body of articulation can be continued if students continue to present and write articles. In order to give them even more such opportunities to do so, we have created a graduate-student-directed publication (*The LT Briefs*) to be distributed to local teachers and to which graduate students, past and present, can easily

contribute. We are also eliciting presentation proposals from past graduate students for our semesterly mini-conferences.

Part III: Enriching the understanding of reference experiences with the maps of others

Donald Freeman (l992, l994, l995) has for some time been involved with mapping the behavioral, cognitive, and interactive (interpretative) mapmaking process of teachers. He has been less concerned with the content of what is being taught, and more with the process of how teachers adopt certain behaviors and guiding beliefs. Along with Clarke's (1992a & b) concept of *teacher narratives*, Freeman's concept of *articulation* captures the essence of what post-Piaget researchers in Switzerland call development through *sociocognitive conflict* (Bell et al. l985; Murphey, l989) , the act of two people explaining their realities to each other and feeling comfortable enough to doubt and question what they themselves are doing, and thereby opening the door to possible cognitive and behavioral change. This article is itself a result of sociocognitive conflict, a meeting of my ideas and those I have heard and read in the literature on teacher education. It has also gone through many articulations (as, I suspect, most articles do).

In l992, Freeman offered six statements for a different view of teacher education. The first statement recognized that teaching is a dynamic integration of thought and action, the acknowledgment that one influences the other, involving processes that cannot be taught directly (Richards and Nunan, l990). In the terms of this article, we could rephrase the above to say that learning about teaching is a dynamic integration of reference experiences and cognitive mapping, each enriching the other. Freeman's statements number two through six expand upon the refining of maps. This refining is done interactively so that teachers have, in my terms, *reference experiences of map-adjusting*: Through Freeman's statements, we recognize that (2) teachers in training

have maps already because of their apprenticeship by observation (their school experience), (3) explaining the maps makes them more conscious and open to change, (4) doing so opens the door to new ways of conceptualizing, (5) these new maps may cause cognitive conflict with old maps and destabilize old beliefs, and (6) resolving these conflicts can engender new behaviors in the classroom. What Freeman is describing, in my mind, is the continual reference experiencing of "mapmaking" that articulation fosters and that moves the profession forward. The parallel in language acquisition is known as learning through *the negotiation of meaning*.

One needs to notice well that there is a big difference between traditional academic *map-giving* and what is described here as the continual effort of collaborative *map-adjusting* and *map-exploring*. As teacher educators, perhaps our biggest task is to create stimulating activities that can lead to map articulation, adjusting, and refining, as well as fresh reference experiences that challenge conventional maps, so as to better serve our mapmaking teachers.

Mario Rinvolucri (private communication) has contended for many years that top-down theorizing explanations often do not change teachers. He has opted more for giving actual activities to teachers. Using Bateson's levels of learning to understand these two points of view, we could say that theory-heavy trainers probably assume that input at the abstract explanation level will filter down to behaviors. By contrast, trainers like Rinvolucri work at getting teachers to do an activity (have reference experiences) and hope that that will change their beliefs. Here, Freeman (1994) seems to be echoing this sentiment when he says, "Knowing does not convert by some mysterious means into doing; knowing arises out of doing. We must therefore attend to what we do—when, how, and where—in teacher education, in order to create new and different ways of knowing teaching and learning" (p. 16).

When theories lack the requisite reference experiences to make sense of them in the listener, they may be learned for *espousing* purposes (on exams, etc.) but are not operationalized. Such theories are known as abstract theorizing and understandably make little sense. Theories convince mostly those who already have reference experiences, or can easily imagine them, experiences that can match the maps and are, therefore, not abstract.

Giving teachers effective communicative behavioral tasks may naturally lead to a reworking of their covert theory of how things work, although they may still be overtly explaining things in an old discourse. This is where getting teachers to talk about the new things they are doing is so important. The student presentations and articles plausibly directed my students toward *noticing* (another parallel term in language acquisition research) their beliefs and theories and opening them up to refinement.

Thus, we need both reference experiences and experiences of cognitive mapping, preferably closely intertwined so that they can have the chance of maximally enriching each other. Not all tasks are, of course, equal in impact. Some will change and challenge beliefs and identities faster than others. The task of presenting would seem to be one, based upon the feedback from the questionnaire. However, such a task needs stimulation (risk-logging), support (writing articles), and preparation or it may backfire and reinforce the status quo.

To summarize, inviting teachers to vary practice (take risks) and to participate (participation = learning) in multiple communities of explanation (Freeman, l995) through presentations and writing articles, serves several functions:

1. It clarifies and justifies teachers' reference experiences of doing, allowing them to generalize useful elements elsewhere.

2. It puts teachers' maps into contact with other maps so that they can be adjusted and refined, at the same time that it influences the maps of other teachers (and teacher educators).

3. Because the explanations are about actual risks that were taken, they give teachers positive reference experiences of map-refining tied to actual classroom behavior, rather than theory divorced from action. For knowledge to be of value, it needs to be presented within the context in which it will be used (Johnson, l995), it needs to be presented within practice (Lave and Wenger, l991).

4. It shows them ways in which they can continue their own teacher development through interactive interpretations with communities of explanation.

5. As Lave and Wenger state, "learning involves the construction of identities" (l991, p. 53). And learning to participate in these tasks would seem to open the door to identity shifts. In Gee's (l990) and Freeman's (l995) terms, teachers apprentice in a new *Discourse* of teaching and create new 'identity kits' through their participation.

6. Through the practice of presenting and writing as other professionals do, they begin to take out membership in the community of practitioners who likewise explore their teaching through allowing it to be more transparent and open to modification.

7. At the same time that they learn and develop these identities (one and the same thing to Lave and Wenger, l991) they have an impact on the community which is continually recreating itself and in motion as well.

I see the risk logging as a crucial beginning to the process of exploratory teaching (Allwright, l992), the opening of belief systems, and the construction of new identity kits because I believe it gets teachers to do something different from what they may have grown accustomed to in their classrooms. Whether the risks are successful or not,

they still give teachers information in which they can look at conventional teaching. Doing the opposite of what one normally does (Fanselow, 1987), or at least something different, can provide a wealth of information and create intense curiosity where before the routine blindly ruled.

If teachers wrote and presented about their conventional teaching, this would only serve to reinforce the status quo. Having to do these tasks in regard to new classroom behaviors leads students to create supportive arguments and tasks for other teachers and serves to make the innovations more credible in their own eyes. More importantly, I think, in the process of these in-depth articulation tasks, some students come to understand and appreciate innovation and articulation at a meta-level. The thrill of exploring and developing new behaviors, beliefs, and identities in the classroom, for themselves and their students, becomes intrinsically motivating.

Pajares (1992) states that, to really know if beliefs are operationalized, ". . . then teachers' verbal expressions, predispositions to action, and teaching behaviors must all be included in assessments of beliefs" (p. 327). The open-ended questionnaire did show changes in their verbal expressions and predispositions to action, while their end-of-semester public presentations provided behavioral indications that they had incorporated certain beliefs at least in interaction with other teachers.

However, despite the positive feedback on the questionnaires, students' observed behavior in presentations, and the continuing indications that many of them are remaining engaged in communities of participation, a certain reserve should be noted in interpreting this research. First of all, the feedback was self-reported and reported to the teacher educator and there are of course differences between what we think, what we report (and to whom), and what we do. The observations were also in teacher-peer-

group settings. It should also be noted that the questionnaire concentrated on only three tasks and did not ask about possible other tasks and influences that may have influenced the respondents changing beliefs and identities. Future research could look at students' actual classroom teaching before and after such tasking and get a more complete picture.

Conclusion

Lave and Wenger (1991) emphasize that "learning and a sense of identity are inseparable: They are aspects of the same phenomenon" (p. 115). The self-reports illustrate how the students perceive the three tasks as shaping their emerging beliefs and identities as teachers.

Lave and Wenger (1991) further contend that the key to participation in new communities, from legitimately peripheral to full participation, lies in ". . . access by newcomers to the community of practice and all that membership entails" (p. 100), and especially "access to practice as resource for learning, rather than to instruction (p. 85)." They see this open and transparent access to participation as the essence of the process of learning effectively. For my students, the writing of articles and giving of presentations potentially were openings of access to the defining processes of the language teaching profession. During their courses, these teachers acted as presenters, writers and risk-takers. To this extent, the tasks encouraged them to participate more fully in the community of teachers concerned with interactively bettering educational practice. Reciprocally, they also had an impact upon the profession as they were heard and read by other teachers and by their teacher educators. The tasks extended their membership and added value to it.

Acceptance by and interaction with acknowledged adept practitioners make learning legitimate and of value from the point of view of the apprentice. More generally, learning in practice, apprentice learners know that there is a field for the mature practice, of what they are learning to do. . . (Lave and Wenger, l991:110)

Membership, however, is a dynamic process of more or less involvement and it remains to be seen how they will continue to change. A lot may depend on the opportunities they find, seize, make, and are offered.

Notes

1. For the mini-conferences, graduate students present in parallel sessions with periodic breaks for participant reformulation and book display browsing over drinks and snacks (see Appendix 1). In l994, we started inviting guest speakers to attract more teachers, and I started going first to welcome participants and give a short 20-minute presentation (because we inevitably get started 10 minutes late). See also Beaufait and Kirk (l995), this volume for another teacher training scheme that incorporates oral presentations for many of the same reasons

2. Mombusho, the Japanese Ministry of Education, has allowed our small graduate school to have only seven students a year since its inception in l992. Thus, my class size has averaged around six with the addition of three or four auditors.

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Appendix 1 Mini-Conference Program (first 2 pages and last page).

Nanzan's <u>*New Ways in ELT*</u> _e

Saturday, Dec. 10, 1994 15:00-18:00
English Language Teaching for Teachers or Teachers to Be
Nanzan University, L Building 11, 12, and 14 <u>*Open to the Public*</u>

Tim Murphey Ph. D. Room L-11 *Encouraging Positive Language Learning Identities & Beliefs* **15:00**

At 15:30, you can **choose to go to room L-12 or stay in L- 11**

In the <u>**L-12**</u> room you will interact with the following ideas: Ito Shozo, Tomida HS	
Using Newspapers in Classes	**15:30**
Maruyama Fukuji, Okazaki HS	
Learning Grammar Communicatively	**16:00**

<div align="center">OR</div>

In the <u>**L-11**</u> room you will interact with the following ideas: Goto Minae, Nanzan HS and Sumako Hayashi, Ichinomiya HS	
Encouraging Learner Autonomy	**15:30**
Sekiyama Kenji Yamada HS	
Teaching Daily Vocabulary in Class	**16:00**

*Participant Reformulation (see below) and
            Coffee Break and **ASANO** Book Display Browsing   16:30

Guest Presenter: Tom Kenny MA, Nanzan University *Students on Video: Learner Self-Evaluation & Correction* **17:00**

Open discussion over Pizza and Drink (Sign up at the reception)   **17:40**

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*Invitational Education
We would like to invite you to take part in an experiment -- a way for learning
interactively at teacher meetings:
During the break, we would like you to find someone from the other room and tell each
other what you have done and seen in the presentations you attended (reformulation). Of
course, we expect you to add your own opinions and experiences, in English or Japanese.
Feedback from a previous meeting done this way was very positive and participants
mentioned they really appreciated how their partners taught them what went on in their
respective rooms. In this way, you will see firsthand 4 presentations and hear from
colleagues about 2 others.

REFORMULATION (re-telling)

Reformulation is a general psycholinguistic learning principle whose value is greatly
underestimated. It allows you to make the material your own as you talk about it. So the structure
of the mini-conference is itself a demonstration of how we can recycle material in our classes,
interactively, and in an interesting way. We hope you enjoy yourselves.

What actually happens in reformulation? Five clear advantages:
(an excerpt from a forthcoming article by Tim Murphey.)

1. **Student attention is increased.** When they know they will have to tell their partners what the
teacher says **immediately afterwards**, they listen more attentively and take more notes. They turn
more lights on in their brains. They are more "there".

2. **Student understanding is increased.** Reformulating makes students negotiate the meaning
interactively. What one partner doesn't understand, the other often does. They can **adjust** to each
other's level of understanding (difficult for a teacher with a group). Pairs can help each other
collaboratively and treat only the areas where there may be trouble.

3. **Student memory is increased.** By reformulating they hear and create the material a second time
in a different way which can deepen understanding. They add their own meaning of the input. Our
short-term memories also need repetition soon after hearing to hold on to new information. Small
chunks of new information make this easier.

4. **Reformulating adds a social dimension to learning that is refreshing**. Our experience has
been that when students discuss the ideas already in class, they are more apt to continue discussing
them outside of class, and in the target language. They get hooked on ideas and knowledge not as
simply things to memorize but as material for life, to be discussed and used and adapted. It livens
up a group. They find it's fun to talk to each other and see another's perspective on the ideas
presented.

5. **Students make the material their own** -- something called "appropriation", or ownership. If we
wish to empower our students with our teaching then they need to take the ideas as their own,

adjust them to their own tastes to fit their experiences. They need to hear it coming from their own mouths.

During today's presentation, we think that you will learn a lot from reformulating and discussing with your co-participants .

Presuppositions guiding this conference

1. Teaching is not something you simply learn and then apply, but rather a **dynamically adjusting process of continually finding better ways to match materials and activities with students' interests and needs.** Rather than teaching becoming mechanistic, this process keeps teaching **exciting.**

2. Interactive language learning is actually **more efficient** in the long run. At first it may take some **risk-taking** on the part of the teacher and some **"getting used to"** on the part of the students, but in the end it actually makes the teaching more effective because it is **more involving and dynamic**. Once one is used to it, interactive learning actually **cuts down on "teacher busy work"** and adds to the time that students are actually using the language in an engaging manner.

3. Students have a lot to **learn from each other** as well as the teachers. Also, teachers have a lot to learn from each other. During today's presentation, we think that you may have learned as much from reformulating and discussing with your co-participants as with the presenters. Pair work and reformulation allow you to make the material your own as you talk about it. A teacher-fronted class too often is like teaching someone the strokes of tennis but never giving them a ball to hit.

4. As language teachers we are the luckiest of teachers, all subjects are ours. **What our students are interested in becomes our subject matter** (Wilga Rivers - paraphrase). We can teach grammar using the topic of sports or pop songs or "Johnny going to the post office in London." Those topics which are most interesting to your students are the ones that will engage them the most in the "usefulness" and "relevance" of what they are learning.

5. We don't know all the answers. But the way to find out more is to **take risks**, do things differently, and explore while teaching. It's an adventure of continual development and improvement. Rather than being a critical pessimist arguing against the many ways that new things might not work, **being realistic optimists willing to take risks is more productive.** It is all right not to be right when we risk. Mistakes are learning steps. Making no mistakes probably means we are not risking and not realizing our full potential as agents of change.

6. Teaching interactively can actually lighten our work. We can recycle more materials, have more exercises, and get students to contribute. We save time. And with motivated students it is easier to teach and more enjoyable.

Appendix 2 Graduate Students' Questionnaire

[Note: The original questionnaire was four pages long with a lot of space between questions for answers. The spaces are removed here.]

Name: age: position:

number of years teaching: Year graduated (ing):

1. Which course(s) did you take? 18:00 Discussions and Readings of LT

                                   19:40 Oral Presentations (NLP skills)

ARTICLES

2. About how many **short articles did you write**?

3. About how many short articles did you send to publications?

4. Of these, how many were accepted and published?

5. After graduating, have you written any articles?

     If yes how many submitted/ accepted?

6. Do you plan to write some articles, or are any being written now?

definitely,   I think so,   maybe,   probably not,   definitely not

7. What would make it easier for you to write articles?

8. How useful was writing the articles during the course?

9. Any suggestions to the teacher about this assignment: (Should it be continued, more guidance, etc.)

ORAL PRESENTATIONS

10. How many public **oral presentations** did you do (one a semester)?

11. Please tell me the good points about this activity.

12 Please tell me the bad points about this activity.

13. Have you given any presentations since graduating?

14. Do you plan to give any presentations in the future?

definitely, I think so, maybe, probably not, definitely not

15. What keeps you from doing (more) presentations?

16. Would you be willing to give a presentation at one of Nanzan's Mini-Conferences in the future? (If "yes", please note possible topics)

17. Any suggestions to the teacher about this assignment: (Should it be continued, more guidance, etc.)

RISK LOG

18. Did you write a RISK LOG, and if so, for how many weeks approximately?

19. What was good about this activity?

20 What was not so good about this activity?

21. Suggestions for the teacher:

22. Do you think that any of your teaching behaviors has changed by doing these three activities (articles, presentations, risk logs)?

23. Did you learn any useful skills through doing these three activities (articles, presentations, risk logs)?

24. Have any of your beliefs (about teaching, you as a teacher, how people learn, etc.) changed by doing these three activities (articles, presentations, risk logs) ?

25. One of my goals was (and still is) to get you to think of yourselves as professionals who can have an impact on other teachers, through publishing articles, presenting workshops, and sharing your innovations with other teachers in your schools. I wanted you to think of yourself as teacher trainers, because I really believe that you do have a lot to share with other teachers. **To what extent do you think of yourself as a teacher trainer and as someone who can help other teachers, and what part did the above activities play?**