

Fostering Global Teacher Training: the Design and Practice of a Web-based Discussion Forum as a Knowledge Building Community

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It is our purpose to design a system to construct a platform for a discussion forum which offers a good opportunity for future ALTs (assistant language teachers) all over the globe to undergo pre-training and join the teachers' community in advance. The actual knowledge building can be seen in the comment box, under a certain topic which has been visualized as a tree in the Forest Forum constructed with the aid of CSCL (Computer Support for Collaborative Learning) technologies. The results of the anonymous online questionnaire and interviews indicate that both groups of teachers demonstrated greater gains for their professional development.

1. Research Background

Most ALTs are young people who come from English speaking countries through the national project, the JET programme. They assist with English classes taught by Japanese teachers of English. The problem is that their professional preparation is insufficient. ALTs have little job training on a practical level in the orientation sessions offered at present, and virtually no individual preparation occurs for the profession before coming into the classroom (Kushima & Nishihori, 2006). The Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan, announced in 2002 that the number of ALTs should be increased to the unprecedented number of over 8400. Taking the expansion of recruitment and dispatch into consideration, Web-based training can complement the present training available and offer pre-training to future ALTs throughout the world. We have developed an online discussion forum which is a system to help future ALTs prepare for their profession. They can build professional knowledge and conceptualize the qualities as a teacher interacting with JTEs and experienced ALTs through online discussion before starting to work at school.

2. Forest Forum

Much focus is placed on interaction (Ferry et al.,

2000; Schon, 1987; Vygotsky, 1978) in the discussion forum, since it offers learners an opportunity to analyze information, explore ideas, and share feelings among learners and instructors in an e-learning environment (Khan, 2005). A number of studies have been carried out concerning knowledge building communities (Bermejo, 2005; Li, 2004; Scardamalia & Bereiter, 1994; Shinohara & Miura, 1999). In our research, we applied collaborative space ontology (Takeuchi et al., 2006), and developed a global online discussion forum, which was named "Forest Forum."

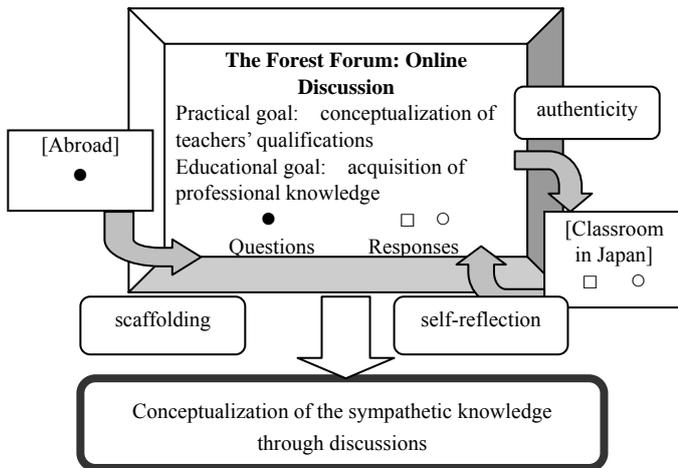
2.1 Paradigm

Several viewpoints have been taken into consideration with the design of the platform of the Forest Forum (Fig. 1) as follows:

1. The Forest Forum is an online discussion forum which develops a 'knowledge building community' (Bereiter & Scardamalia, 1993) as a group of people who work on team-teaching lessons in English classes in Japanese schools or are going to;
2. The discussions center on vocational education for ALTs;
3. Future ALTs will gain comprehension from discussions among JTEs and experienced ALTs as mentors;
4. The level of ALTs' understanding of their

profession is evaluated;

- The discussion level and the degree of contribution of mentors are visualized.



- Future or novice ALT □ JTE (Japanese teacher of English)
- Experienced ALT

Fig. 1. Paradigm of the Forest Forum

In the Forest Forum, future or novice ALTs ask questions about their jobs, while JTEs or experienced ALTs answer the questions. Future or novice ALTs can develop an understanding of the values, norms, and habits of the teaching profession in Japan through interaction with experienced teachers. In addition, all the participants come to share the ideas of their profession and conceptualize teachers' qualifications. Through discussions, they can build professional knowledge and conceptualize sympathetic knowledge. Moreover, it is said that a good online discussion forum offers three functions: authenticity, scaffolding, and self-reflection (Miyake, 1997), and these qualities are certainly included in the Forest Forum.

2.2 Design

Contribution from each member can be visualized in this forum which takes the form of an easy-to-understand display of the actual community at work (Fig. 2). Trees, Flowers (designed in a variety of colors), the Blinking Flower, and the Butterfly show the argument level and the degree of contribution of the mentors. When a topic is posted, a tree comes out on the screen. The newest tree appears on the upper-left. When a reply to the topic is posted, a flower comes out in the topic tree on the screen. The color of the flower is decided according to the status of a member. The more trees and flowers there are on the screen, the more active the discussion within the community is.



Fig. 2. Visualization of the discussion level

2.3 Visualization of the Discussion and the Degree of Contribution

The actual knowledge building can be seen in the comment box, under various topics which have been visualized as trees in the Forest Forum (Fig. 3). When the reply to a topic is posted, a flower comes out in the topic tree on the reply screen as well as on the home. Whenever a reply to the same topic is posted, the comment boxes extend downward in order of posting. The color of the comment box is the same as that of the flower. Pink represents JTEs; yellow, experienced ALTs; and blue, future ALTs except the questioner. We can see the degree of members' contributions at a glance. Consequently, we can witness this creation of knowledge once we are in this forum.

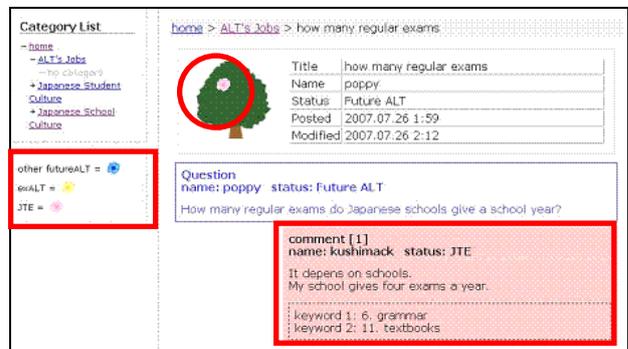


Fig. 3. Visualization of the discussion and the degree of contribution

Moreover, questioners can evaluate the reply to their own question by clicking the "good" button.

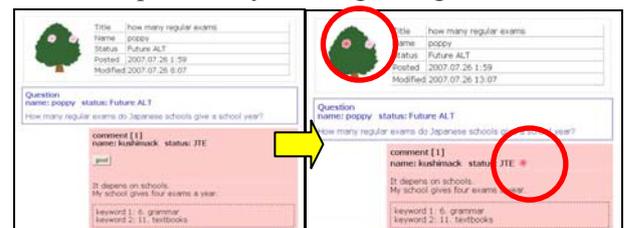


Fig. 4. Evaluation of the reply to the question

Then, a “blinking” flower appears on both the tree and the comment box in the question (Fig. 4). They can also evaluate the whole discussion when they close the topic.

3. Research Questions and Method

In order to measure the effectiveness of the Forest Forum, the following questions were posted:

1. Do future or novice ALTs develop a sense of belonging to the community as they develop an understanding of the professional role of ALTs?
2. Do future or novice ALTs develop a sense of belonging to the community as JTEs and experienced ALTs contribute ideas about their profession and the culture of Japanese schools to the discussion?
3. Does the development of discussions enable future or novice ALTs to further understand their profession, and help experienced teachers cultivate fresh new ideas and viewpoints regarding their profession?

The Forest Forum was established in August, 2007, and a variety of discussions were observed for 68 days. 16 ALTs and 14 JTEs enrolled in the Forest Forum, most of them accessing the forum from their own computers. Data was collected by an anonymous online questionnaire and interviews to the participants. Face to face interviews were partly conducted. Following this, the results were analyzed based on the above points.

4. Results and Discussions

The results indicate that both groups of teachers demonstrated greater gains for their professional development. The findings will encourage the researchers in refining the knowledge building community for future professional development.

Table 1 shows correlation analysis of future or novice ALTs’ “comprehension of keywords,” “satisfaction with response,” and “sense of

Table 1. Correlation analysis of “comprehension of keywords,” “satisfaction with response,” and “sense of belonging to the Forest Forum”

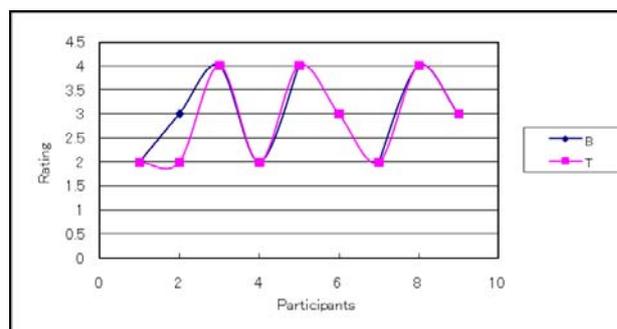
	<i>N</i>	<i>r</i>	<i>t</i>	<i>P</i>	<i>t</i> (0.975)
C X S	7	.90*	4.10	.01	2.78
C X B	7	.78*	2.75	.04	2.78
S X B	7	.92*	4.67	.01	2.78

Note. C = degree of comprehension of keywords, S = degree of satisfaction with response, B = degree of sense of belonging to the Forest Forum.

**p* < .05.

belonging to the Forest Forum.” “Keywords” means important words regarding ALTs’ work such as “ALTs’ role,” “team-teaching,” and “Japanese school culture.” We can see that the three factors correlate with one another. Namely, future or novice ALTs became satisfied with the responses, and at the same time they developed an understanding of the nature of teachers’ work. Consequently, they were able to develop a sense of belonging to the community. However, the correlation coefficient in the middle line is a little smaller than the others. This implies that ALTs are likely to be satisfied with the whole reply even though they have not sufficiently understood their profession yet.

Fig. 5 shows each future or novice ALT’s “degree of sense of belonging” to this community and any changes in their ideas or behavior after participating in the Forest Forum. From this figure we can observe a strong correlation between their sense of belonging to the community and these changes. Accordingly, it follows that ALTs enhanced their sense of belonging to the Forest Forum, and, as a result, they developed a sense of professional identity.



Note. Blue line = degree of sense of belonging to the Forest Forum, red line = degree of change in ideas or behavior.

Fig.5. Level of the sense of belonging to the community and the degree of change after participating in the Forest Forum

The following participants’ comments demonstrate that they realized growing awareness of their profession, and deepened their sense of belonging to the community through interaction. Anyone who offered these comments was extremely satisfied with the community. A future ALT who offered the comments shown in 4-1 expressed her appreciation for the responses.

4-1:

- *I would like to thank ... for very enriching and enlightening comments. It will really help me to be an effective future ALT teacher.*
- *Thank you for the information about detailed*

information about ALTs. I really appreciated it.
(an ALT's comment in the questionnaire thread about "an effective and efficient ALT")

Furthermore, the participants who offered the comments in 4-2 realized that they had built professional knowledge, and then enhanced their sense of belonging to the community.

4-2:

•... *By conducting lessons with JET people as partners, ALT teachers could learn something. So I think that co-constructing the lessons with the ALT encourages me to develop as a language teacher.*

(A JTE's comment in the questionnaire thread about "ALTs and JTEs role")

•*I agree with ... because TT helps each one of us to learn, develop and make the most out of what we have, especially in teaching language. When you incorporate TT in the classroom it makes an individual more relaxed, comfortable and confident in teaching.*

(an ALT's comment in the questionnaire thread about "ALTs and JTEs role")

The comments from the face-to-face interview in 4-3 went on to show that future ALTs gained professional knowledge and developed an emotional attachment to the community.

4-3:

•*I actually, personally, find it interesting to look at, to find out about, like behavior of the students in Japan, and it helps me to imagine what schools are like in Japan. That's interesting .*

•*I've taught Japanese students in Australia the last couple of years. I haven't actually ever been to Japan before, so that's why I found it very interesting for me to gain some inside, about the school in Japan, Japanese school culture.*

5. Conclusion

On the basis of these observations, we can conclude that the Forest Forum has offered a good opportunity to help future or novice ALTs make professional preparations for their jobs. They came to realize the development of the knowledge needed to become a suitable ALT with the help of other members of the forum, and also their sense of professional identity. JTEs and experienced ALTs contributed to the future of novice ALTs' professional development, and they themselves

gained a deeper awareness of their professional knowledge or identity. Moreover, both groups of teachers demonstrated attachments to the Forest Forum even though it was still a community in the early stages. All in all, we suggest that a global online discussion forum can work as an effective pre-training system offered to prospective ALTs.

Acknowledgments

This study is supported by Grant-in-Aid for Scientific Research (B) No. 18320086 from Japan Society for the Promotion of Science (JSPS) .

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