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## **A Participatory Action Research Study of the Collaborative Learning Process**

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**Abstract:** The purpose of this participatory action research project was to identify attributes that contribute to a successful collaborative learning experience. Data analysis revealed the following emergent themes to be important: reflection and dialogue, interpersonal relationships, and group and individual responsibilities.

### **Introduction**

Several studies have been recently conducted examining collaborative learning, but all of these have examined groups of participants already familiar with the collaborative learning process (see Armstrong, 2001; Tisue, 1999; and Portwood, 2000). The current study involved participants new to the collaborative process and documented their experiences in a collaborative learning group. The research also had the added feature of being a participatory action research project, in that the participants in the collaborative learning group conducted the research in an attempt to further understand their practice and experiences as collaborators. The study was guided by the research question: *What are the attributes of a successful collaborative learning experience?*

*Course Participants:* The participants were nine graduate students in Adult and Community Education and a faculty member experienced in collaborative learning. All were engaged in a three-credit-hour seminar in collaborative learning at Ball State University during the summer of 2001. All but one of the participants were experienced educators, and all had varied personal backgrounds. The ages of the four males and six females ranged from mid-thirties to mid-fifties. One participant was from Central America.

*Course Structure:* The collaborative learning course was structured in a recursive manner; the subject matter of the course was the collaborative learning process and the course was conducted with collaborative methodology. Rather than simply talking, the group often stopped their discussion to examine the process of their conversation. This recursive process allowed the participants not only to talk, but talk about how they talked. Thus, the participants learned about collaborative learning in a collaborative fashion. Although the course drew upon readings from authors such as Mezirow (1996), Bohm (1990), and Shotter (1993), the participants' experiences were the primary sources of content for the course. Following the model of Dominice (1991), each participant wrote, and in turn, verbally shared an educational autobiography, providing starting points for dialogue. The participants questioned one another and explored ideas and concepts that rose to the surface of the conversation. This continued throughout the duration of the course.

### **Research Method**

Five of the ten course participants elected to be primary investigators in the research project. All five were equal participants in the design and execution of the research project, and in this sense, mirrored the course experience. The research design was modeled after Heron's (1996) Co-operative Inquiry, and Participatory Action Research as defined by Lewis (2001).

After the course was completed, all ten participants were interviewed using a phenomenological protocol. The five researchers performed initial coding of the transcribed interviews independently. The researchers then continued the analysis process as a group, following standard qualitative coding processes, with one unique variation. When analyzing the

transcripts of the five primary researchers, the group did not rely solely on the transcripts. This analysis was augmented by the interviewees being present to provide an interpretation and explanation of the content of their transcripts. Two additional class participants volunteered to participate in the interpretation and analysis of their interviews as well.

### **Findings**

The analysis resulted in three emergent themes that reflect the experiences of the participants:

- Dialogue and Reflection
- Interpersonal Relationships
- Group and Individual Responsibilities

These themes are not isolated or stagnant, but rather are dynamic and represent an interwoven gestalt that reflects the rich experience of the participants.

*Dialogue and Reflection:* Dialogue and reflection were found to be important, but also interdependent, features of the collaborative learning experience. In analyzing the interviews, we found two distinct contributors that fostered the development of dialogue: enablers of dialogue, i.e., those things that, had they not developed, dialogue would not have occurred, and skills necessary for maintaining dialogue, listening, reflection, and suspending assumptions. We discovered that reflection was not only the most important skill, but that it was also multifaceted. Dialogue and reflection are described as interdependent because in many of the interviews participants talked about an ongoing cycle of dialogue and reflection.

The enablers of dialogue were sharing/openness, trust, and group identification. The analysis revealed that the autobiographies contributed significantly to the development of these enablers. One member described the autobiographies as the “key in all the process.” Another member noted:

I think they really contributed to the overall, cohesiveness of the class because as we shared our personal things about our lives and our feelings, then the group became more trusting with each other and able to work together.

Sharing/openness and trust were important to enabling dialogue as one member stated:

I say that I felt that we were a group of friends and I think you establish your friends by mutual respect and trust and openness and sharing with each other our lives and our feelings, I believe and our understanding.

The development of group identification was also important as illustrated by the following two statements from participants. The first:

I think that in this kind of session you have to change your mind and be more group-centered than self-centered.

And the second:

Like the first night of class it was like I don't want to talk to these people and then by the end of class it was like we're buddies because we knew so much about each other's lives that it was more comfortable to talk openly.

In the skills necessary for maintaining dialogue the importance of listening is illustrated by what this member said:

However, in this context I found out that if I was to be productive in the process I was forced to put aside what I was going to say and concentrate more on what people were saying.

Another group member put it this way:

.... but I think the reality is when you're trying to construct knowledge you have to listen to where the other people are coming from and not put your own framework on top of that.

The importance of the skill of “suspending assumptions” is illustrated by this group member’s comment:  
And I guess this is a way to illustrate assumptions. We need to ask why I believe this? Then find if we need to change some of our assumptions. This is really important.

Data analysis revealed that for these participants reflection had four facets: reflection in Action

- Reflection on Action
- Reflection as a Group
- Reflection as Individuals

A knowledgeable reader will recognize the first two forms of reflection as consistent with the work of Schon (1987), but the participants in this study articulated these reflections in terms of their own experiences. Reflection in action was described by participants as a process that took place parallel to the dialogue. Participants, both collectively and individually, reflected on the dialogue as they participated in it. Reflection on action was described by participants as pauses in the dialogue taken by the group to collectively examine what was said and why it was said. Reflection as a group was described by one participant as processing individual meanings into a group meaning. And lastly, reflection as individuals occurred primarily between group meetings. One participant described this as:

There’s something about that time period between the meetings that is important for people to process what they’ve discussed and what they’ve learned through the group interaction.

*Interpersonal Relationships:* One of the most salient aspects of the process of collaborative learning is the interpersonal relationships that develop among the learners. According to studies related to collaborative learning, the combination of relationships with positive traits such as engagement, commitment, and responsibility becomes a powerful tool for the social construction of knowledge (Peters & Armstrong, 1998). In this study, all the participants described the relationships as positive and atypical from those of a traditional classroom. One participant expressed it this way:

It was the first time knowing my classmates in a different way. Now they mean more to me. My vision of them changed.

Data analysis suggests that as these interpersonal relationships evolved, the participants felt free to communicate openly their feelings, beliefs, opinions, assumptions, and so forth. As one participant said:

I felt that people were not as afraid to perhaps, oh, speak up and express an alternative opinion because we knew that others were not going to take offense.

Similarly, another participant said:

I was terribly impressed about everybody’s openness and honesty. It’s not surprising as much as it is rewarding.

As the relationships evolved, participants found themselves using metaphors to describe the process. Metaphors brought new and rich insights into the process. In this sense a participant mentioned:

I think that metaphor kind of gave us the freedom to get away from more structured kind of linear academic style.

It is important to point out that in spite of the positive relationships that developed, conflict arose. Research indicates (Armstrong, 2001) that it is not unusual in the process of collaborative learning for a variety of conflicts to emerge. In a successful collaborative learning endeavor, however, participants are likely to constructively resolve these conflicts. Participants use conflicts to build rather than destroy their relationships. For example, one participant explained:

I'm not sure in collaborative learning that we have to work through conflict, but in this particular instance, I think it was a very positive thing for us, working through conflict. In this group it was a meaningful experience.

Moreover, the analysis of the process of collaborative learning illustrates that because of the climate of trust, respect, and cohesiveness that was built, the participants' engagement, commitment, group processing and reflection were meaningful.

A participant stated:

I really valued this group. I thought it's one of the better groups that I've worked with in a long time and I really enjoyed the experience. I felt I could trust them. I felt a high level of trust and support.

Another aspect that arose in the analysis was the diversity of the group. From the perspective of the participants, diversity added a unique flavor in terms of the development of relationships and dialogue. One participant said:

But diversity I thought was really interesting because we were all at different points in our lives and careers and in different age groups, and I thought it was interesting to bring different groups like that together.

A final important component of this theme was that the facilitator and learners viewed each other as equals. As a result, the participants assumed diverse roles throughout the process, such as those of summarizer, task-master, challenger, observer, and facilitator. This fact directly influenced the whole dynamic of the process of collaborative learning and level of engagement of the participants, as illustrated by a participant who said:

Collaborative learning is a group effort in which participants take responsibility for keeping the group moving and making sure everyone is included.

As evidenced by this analysis, collaborative learning added new dimensions to the teaching/learning process.

*Group and Individual Responsibilities:* Frequent allusions to the different responsibilities of participants highlighted its importance as a theme. Described as an evolutionary process, this theme encompassed the responsibilities of the facilitator to the group; the individual as a learner; the individual to the group; and finally, the responsibility of the participants to collectively construct knowledge. Woven within this theme was the idea that the roles assumed at times by the different members of the group entailed different responsibilities.

The changing responsibilities of the facilitator to the group (described as becoming less directive) were recognized by all of the participants, although more positively by some than others. One participant put it this way:

An effective group sort of works the facilitator out of a job, and it becomes a group facilitation thing.

This is consistent with Bohm (1990), who described the evolution of the facilitator responsibilities thusly, "It may be useful to have a facilitator to get the group going, who keeps a watch on it for a while and sort of explains what's happening from time to time, and that kind of thing. But his function is to work himself out of a job." (p. 10). Understanding the responsibilities of the facilitator is not the same as accepting them, and one of the participants, who described herself as someone who came into the class "with somewhat of a negative feeling," struggled to understand the challenges faced by the facilitator in a collaborative learning experience. She felt that the instructor risked frustrating students who, like herself, were accustomed to a traditional classroom with the traditional responsibilities of the instructor. One implication that can be drawn is that in order for the group to be successful, it is imperative

that the participants understand the unique role and responsibilities of the facilitator in collaborative learning.

Participants addressed the responsibilities of the individual as a learner through their reflections on the process of collaborative learning, a process that was described as being developmental. One participant stressed the need for each member of the group to be a self-directed learner. An observation made by the researchers is that collaborative learning works best with individuals who have reached a certain maturity--not necessarily a chronological maturity--but a maturity in their readiness to learn for intrinsic reasons. The learners must understand that they are not only responsible for their own personal learning, but must also accept responsibility for the learning of their fellow collaborators.

The idea of each individual having responsibilities to the group was an important concept. We found that participants strove to delineate their responsibility to the group by expressing a need to hear one another; to really listen without trying to impose their own meanings on another's words, and yet to make sure the voice of each was heard. One participant summarized this as follows:

As a participant in collaborative learning it's important that my voice be heard...I can't assume that other people will know what I'm thinking. There's a responsibility for hearing what the others have to say, but I think there is also a responsibility for making sure that you are a part of what's being heard.

The recognition of the participants' responsibility to collectively construct knowledge was widely acknowledged. One participant, the only one with prior group experience, confessed that she initially felt a sense of responsibility for the group structure, and expressed her relief at relinquishing that responsibility as the others became more skillful at the collaborative process.

Toward the end I think people did get it. The group was the one that was responsible for [the learning].

Others noted the group's responsibility to ensure no single person dominated. One individual expressed it as a responsibility to go beyond just speaking and listening to others, to be a part of constructing new knowledge.

Responsibility means that if I'm seeking the knowledge I'm responsible for being a part of that new knowledge. I can't let it just come from the outside, it has to come from the outside and impact what's on the inside.

### **Summary**

This study identified three themes, dialogue and reflection, interpersonal relationships, and group and individual responsibilities. Dialogue was found to have enabling and skills components. The enablers were sharing/openness, trust, and group identification. The skills were listening, reflection and suspending assumptions. Reflection had four facets, reflection in action, reflection on action, reflection as a group, and reflection as individuals. Interpersonal relationships were manifested in equal relationships among the learners.

The relationships that developed were positive and atypical from those in a traditional classroom. Relationship building included the use of metaphors, constructive conflict resolution, meaningful engagement, and group processing experiences. This relationship building was enhanced by the diversity of the participants. All participants agreed that because of the relationships in the group, collaborative learning added new dimensions to the teaching/learning process.

Group and individual responsibilities evolved over time and included the responsibilities of the facilitator to the group, the individual as a learner, the individual to the group, and the

responsibility to collectively construct knowledge. In this group the facilitation became a shared responsibility of all participants, rather than remaining the sole responsibility of the faculty member/facilitator. Collaborative learning seems to work best with participants who have reached a level of maturity where they can assume responsibility for their own and others' learning. Participants strove to delineate their responsibilities to each other by not only truly hearing others, but by creating equal opportunity for each voice to be heard. And lastly, but perhaps most importantly, the participants recognized their responsibilities to collectively construct knowledge.

### References

- Armstrong, J. (2001). Collaborative learning from the participants' perspective. Paper presented at the 42<sup>nd</sup> Annual Adult Education Research Conference. June 1-3, 2001, Michigan State University, East Lansing, Michigan.
- Bohm, D. (1990). *On Dialogue*. Ojal, CA: David Bohm Seminars.
- Dominice', P. (1991). Composing education biographies: Group reflection through life histories. In Mezirow, J. and Associates (1991). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning* (pp. 194-212). San Francisco: Jossey-Bass.
- Heron, J. (1996). *Co-operative inquiry: Research into the human condition*. London: Sage Publications.
- Lewis, H. (2001). Participatory research and education for social change: Highlander research and education center. In Reason, P. and Bradbury, H. (Eds.) *Handbook of action research: Participative Inquiry and Practice*. (pp. 356-362) London: Sage Publications.
- Mezirow, J. (1996). Contemporary paradigms of learning. *Adult Education Quarterly*, 46 (3) 158-172.
- Peters, J. and Armstrong, J. (1998). Collaborative learning: People laboring together to construct knowledge. In Saltiel, I, Sgori, A. and Brockett, R. (Eds.) *The power and potential of collaborative learning partnerships. New directions for adult and continuing education no. 79* (pp. 75-85). San Francisco: Jossey-Bass.
- Portwood, M. (2000). *The experience of students in a collaborative learning classroom*. Unpublished doctoral dissertation, University of Tennessee.
- Schon, D. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Shotter, J. (1993). *Conversational realities: Constructing life through language*. London: Sage Publications.
- Tissue, L. (1999). *Facilitating dialogue and decision making in a family business*. Unpublished doctoral dissertation, University of Tennessee.