

Collaborative Learning Applied to Fieldwork Education

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SUMMARY. Occupational therapists of the 21st century must be educated to provide intervention within health, education, community, and policy-making areas. Therapists need to solve complex problems, often in collaboration with numerous stakeholders. This article proposes that

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preparing occupational therapists for current practice requires a fundamental change in our educational beliefs and that a collaborative approach among students and fieldwork educators is most congruent with the interactive environments of current practice. The philosophical principles of collaborative learning are reviewed and practical considerations to apply the principles to Level II fieldwork programs are described. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2001 by The Haworth Press, Inc. All rights reserved.]

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The methods educators choose to best prepare students for the 21st century are dependent upon underlying beliefs about learning. Historically, occupational therapists utilized a one-to-one or individualistic model of fieldwork education. Students relied on the fieldwork educator to provide them with correct approaches to practice (Collier & O'Connor, 1998). By passively accepting knowledge from their fieldwork educators, students learned in a competitive atmosphere. Recently, we have shifted away from this "received knowledge" perspective, in which learners were taught isolated skills by experts, to a "process oriented" perspective where students construct and reflect on knowledge related to the context in which it is used (Belenky, Clinchy, Goldberger, & Tarule, 1986; Light & Butterworth, 1993).

The 1998 Standards for an Accredited Educational Program for the Occupational Therapist emphasize the value of promoting clinical reasoning and reflective practice during fieldwork experiences. Numerous authors recommend shifting from a technical-skills oriented approach to a process-oriented approach that prepares future practitioners for life-long learning (Cohn, 1989; Cohn & Czycholl, 1991; Eraut, 1994; Mattingly & Fleming, 1994; Rogers, 1983; Royeen, 1995; Parham, 1987; Schon, 1987; West, 1990). This article reviews some of the antecedents to the focus on process, and proposes that a collaborative approach to fieldwork education offers a philosophical framework well-suited to prepare occupational therapists for evolving practice arenas. Practical considerations for applying a collaborative approach in fieldwork settings are also delineated.

A broader view of the learning process requires that we consider the interpersonal and sociocultural context in which future practitioners will be working. Occupational therapists of the 21st century and beyond must be educated

to provide services within health, education, community, and policy-making arenas. We now work in environments that emphasize cost containment, realistic functional outcomes, evidence-based practice, and client-centered care. Successful intervention involves a collaborative and mutual process where practitioners and consumers develop intervention plans together (Case-Smith & Wavrek, 1993; Crepeau, 1994; Golin & Ducanis, 1981; Humphry, Gonzalez, & Taylor, 1993; Leff & Walizer, 1992; Neistadt, 1987).

Along with the shift in the health care environment, perspectives on education and learning have also shifted. Rather than placing responsibility for learning on the experts to teach specific skills for a particular situation, responsibility is shifted to the learner to solve the variety of problems confronted in practice. Johnson and Johnson (1991), leading proponents of collaborative learning, delineated principles which highlight contemporary views about learning:

1. Knowledge is constructed, discovered, transformed, and extended by students. The educator creates a setting where students, when given a subject, can explore, question, research, interpret, and solidify the knowledge they feel is important.
2. Students actively construct their own knowledge. Students guided by the educator actively seek out knowledge.
3. Education is a personal transaction among students and between educators and students as they work together.
4. All of the above can only take place within a cooperative context. There is no competition among students to strive to be better than the other. Students take responsibility for each other's learning.

Emerging from these contemporary views of learning is the problem-based learning model (PBL) that emphasizes active student involvement, enabling students to assume the habits of lifelong learning. Using PBL principles, Royeen (1995) designed an occupational therapy curriculum in which students worked in small group tutorials to solve problems. Through PBL, students are enculturated into the process of learning in groups, which simulates the practice environment where therapists work in collaborative teams. More recently, Nolinske and Millis (1999) argued that "lecture-based pedagogical approaches" cannot adequately prepare students in professional and technical occupational therapy programs (p. 31). They advocate strategies to enable students to discover and construct knowledge.

As a result of these shifts in education and health care, interest in applying collaborative learning principles to fieldwork education has blossomed (Bruffee, 1987; Crist, 1993; DeClute & Ladyshevsky, 1993; Horger, 1994;

Ladyshewsky, 1993; Ladyshewsky & Healy, 1990; Stern, 1994; Tiberius & Gaipman, 1985). Collaborative learning extends beyond putting a group of students together to learn from one fieldwork educator. Collaborative learning is a form of indirect teaching in which the educator states problems and organizes students to solve the problems in peer groups. Interest in collaborative learning is further motivated by our heightened awareness of the critical reasoning demands on therapists. Practitioners must recognize the unique conditions presented by each situation, make careful observations, interpretations, and problem solve with others to develop the best strategies for intervention. Thus, preparing occupational therapists to provide collaborative and wide-ranging services requires a fundamental change in our philosophical beliefs. The focus of this article is to suggest ways in which the philosophical and practical principles of collaborative learning can be applied to occupational therapy fieldwork education.

PHILOSOPHICAL PRINCIPLES OF COLLABORATIVE LEARNING

A compelling theoretical rationale for collaborative learning comes from the Russian psychologist L. S. Vygotsky (Miller, 1993). Emphasizing the role of context and socialization in the creation of knowledge, he claimed that our distinctively human mental functions and accomplishments have their origins in our social relationships. Mental functioning, in his view, is based on the assumption that people learn through group interaction where individuals exchange ideas. This social constructionist view recognizes the possibility of multiple realities because each individual experiences the world from his or her own perspective. Through the group interactive process, individuals learn about the diversity of their individual perspectives and create a unified broad perspective. If we embrace this perspective that knowledge is socially constructed through interaction with people, we can see the value of learning within groups during fieldwork experience.

Vygotsky's community collaboration perspective directly challenges the view of the fieldwork educator as "expert," explicitly telling or showing presumably unknowing students the correct response. Rather than relying solely on the fieldwork educator, learners help each other learn, each according to their abilities. These student collaborations do not exclude the presence or value of role models but shift the role of fieldwork educators to that of conductors "orchestrating" the learning (Bruner, 1996). This role shift does not reduce fieldwork educators' role or authority—rather fieldwork educators encourage students to share the role as self-directed learners and to use each other as primary resources.

Closely linked to Vygotskian community collaboration ideas are the teamwork practices derived from social learning theory. These teamwork practices are based upon the principle that students will be more motivated to work hard to help group members when they are working toward a common goal. Thus, the role of the fieldwork educator is to acknowledge a student only when all of the group members succeed in learning. Johnson and Johnson (1990) have identified five basic conditions of a collaborative learning situation:

1. Positive interdependence: a recognition by group members that they are linked together in a way that none of them can be successful unless they all are. Students must believe they sink or swim together. Within every cooperative task, students develop mutual learning goals.
2. Face-to-face interaction: group members have access to each other's talents and resources and promote each other's success. Students interact to help each other accomplish a task.
3. Individual accountability: requires each group member to be active, learn, and be able to do the things that they learned in the group. Students team together so they can subsequently perform at a higher level as individuals. Students are held individually accountable for their share of the work.
4. Cooperative skills: need to be encouraged and taught as carefully as the subject matter.
5. Group processing: students in cooperative relationships need to process their experiences on an ongoing basis to become more skillful in working as a group. Fieldwork educators need to ensure that members of the group discuss how well they are achieving goals and maintaining effective working relationships. Group members need to identify what is helpful or non-helpful.

These concepts of cooperative relationships define the difference between simply putting students in groups to learn and collaborative learning.

The application of these collaborative learning principles is consistent with our understanding of adult learners (Knowles, 1980). Table 1 highlights the differences between the traditional learning that is based on pedagogical approaches to learning and the collaborative approach that is based upon adult learning principles of androgogy. Adult learners are generally "self-motivated and self-directed learners whose experience orients them to practical issues" (Pecora & Austin, 1987, p. 135). The climate of today's occupational therapy practice arena demands that practitioners be both self-motivated and self-directed as they frequently confront new and more complex problems. Thus, we need to prepare future occupational therapists to take control of their learning

TABLE 1. Differences Between Traditional and Collaborative Learning

Traditional	Collaborative
Competitive	Cooperative
FW Educator is expert	FW Educator is co-learner in group
FW Educator is in control of time and response	Group membership shares timing and response
FW Educator in control of content, transfers knowledge to student	Group decides content and sequence, knowledge is jointly constructed and modified by group process
FW Educator establishes learning structure	Group shares responsibility for structure
FW Educator is autonomous	Group is interdependent/share individual roles
Students passive learners	Students active learners
Students work independently, little interaction, impersonal transaction among students	Prolonged interaction, oral rehearsal of material being studied, peer tutoring/learning and general support
Predictable learning objectives	Objectives formed by group

rather than develop dependence upon a fieldwork educator to prescribe what they should learn and when.

Bruffee (1987) argued that “Collaborative learning calls on levels of ingenuity and inventiveness that many students never knew they had. And it teaches interdependence in an increasingly collaborative world that requires greater flexibility and adaptability to change than ever before” (p. 47). Research indicates that if student-student interdependence is structured carefully, students will achieve at a higher level, applying reasoning strategies more frequently, and will be more intrinsically motivated (Johnson & Johnson, 1990). It is these skills that we aim to teach our future occupational therapists.

APPLICATION OF COLLABORATIVE PRINCIPLES TO LEVEL II FIELDWORK

The principles of collaborative learning have been applied in fieldwork education programs at a private psychiatric hospital, a not-for-profit multi-level

rehabilitation and long-term care facility for persons with physical disabilities, and a group of community-based adult day programs. Collaborative learning has been used in these settings with student-fieldwork educator ratios of 2:1 and 3:1 for several years and will be described in the following section.

Preparation

Education and preparation are essential for fieldwork educators and students in all fieldwork settings. Students have generally been socialized to approach learning in a competitive manner, and learning with peers in a collaborative manner requires a shift in philosophy. Therefore, prior to developing a collaborative fieldwork education program, everyone involved needs to understand the principles of collaborative learning and make a collective commitment to implementing a collaborative fieldwork education program.

Preparation for implementing a collaborative learning approach to fieldwork education can take many forms and must be tailored to the needs of the occupational therapy department and individuals involved. Revising existing fieldwork programs avoids having to recreate an entirely new program. One way to begin the conversation about collaborative learning is for the staff to review articles articulating the philosophical underpinnings of collaborative learning. The staff could share their impressions of the collaborative approach and brainstorm about how a collaborative approach might work in their particular setting. Such a discussion may serve the additional purpose of identifying any fears, barriers, or misgivings that fieldwork educators may have about giving up their traditional modes of supervision. With these potential barriers identified, steps can be taken to provide additional education or dispel myths.

Conferences and consultation about collaborative learning are frequently available to therapists from local academic programs (Collier & O'Connor, 1998; Joe, 1994) either on-site or off-site. Clinical fieldwork coordinators knowledgeable about collaborative learning may also act as resources for fieldwork educators through regular supervision sessions. At the psychiatric hospital a weekly fieldwork educators meeting was held to examine personal teaching styles, explore educational beliefs, discuss differences between collaborative and traditional learning, address student issues, and provide mutual support. The group analyzed the existing fieldwork program to identify learning activities that could be shifted to a collaborative format. Once the collaborative approach to fieldwork was implemented, the content of the weekly meeting shifted to practical problem solving and discussion of successes and new ideas.

As with any new venture, successes should be nurtured early on. When attempting to replicate the program described here, identification of a few field-

work educators who are initially enthusiastic about collaborative learning may help generate interest in the model among others (Ladyshevsky & Healey, 1990). Some programs may be particularly conducive to a collaborative approach, perhaps due to the number of clients involved, or the intervention philosophy utilized. For example, at the psychiatric hospital a general therapy unit was selected to use the collaborative approach because it had a large and varied caseload that could easily accommodate two students being added to the occupational therapy team. Furthermore, most of the therapy took place in groups where the student pair could serve as co-leaders, which was already the norm for group leadership.

Prior to the fieldwork experience, students should also be prepared to participate in the collaborative approach to learning. The academic fieldwork coordinator can provide an introduction to the philosophical tenets of collaborative learning and any facility-specific information. The clinical fieldwork coordinator can provide seminars, readings, interviews, or a mailing describing the collaborative approach to fieldwork education. Again, a discussion of assigned articles may be very helpful and may set the stage for collaborative teamwork. In many settings, once the fieldwork experience begins, students attend a weekly peer supervision meeting that is structured and run by the students themselves to facilitate group processing and to maintain effective working relationships.

Forming Student Pairs

Within the realm of collaborative learning, no single approach is recommended for team or pair formation. There are several ways to decide upon student pairs or groupings for collaborative learning. Students may provide background information identifying their prior experiences and learning styles to aid in determining student pairs. Academic fieldwork coordinators sometimes pair students according to academic or personal characteristics (Ladyshevsky & Healey, 1990). This grouping method may not be ideal, however, because it takes the element of choice and control away from the learners at the onset. According to Johnson and Johnson (1991), students should have an active role in the collaborative learning process. When pairs are formed at random, or by the educator, students' individual accountability is diminished. If the student pair encounters difficulty, it may be easier to blame the educator for an unsatisfactory pairing. Another approach to assigning pairs is to ask students to identify desired specialty programs within a large facility.

An innovative approach to pairing students used at the psychiatric hospital is to have students meet the various fieldwork educators and preview the different programs on the first day(s) of the fieldwork experience. Before choos-

ing their collaborative partners, students complete an ice breaker activity together, such as making ice cream together or exploring the grounds of the facility. This shared activity immediately fosters positive interdependence. Allowing students to choose their partners facilitates autonomy and encourages students to take responsibility for their choices from the beginning of the fieldwork experience. Sending students written information in advance regarding the different therapy programs, and asking students to rank their preferences can shorten the decision-making process.

Students from the same academic program may become collaborative pairs; however, students from different academic programs often find an additional richness in their collaboration due to their diverse backgrounds and curricula. At the psychiatric hospital no attempts are made to match students according to academic records or other criteria. The therapists there have found that students with very different academic skills and preparation can form effective collaborative relationships.

Role and Preparation of Fieldwork Educators

In collaborative learning the daily activities and expectations of the fieldwork educator are quite different from the activities and expectations in a traditional one-to-one supervision model. In all fieldwork models, the fieldwork educator can expect to spend time role modeling evaluation, therapy, and other responsibilities in the initial weeks of the learning experience. As students take on more responsibilities, the fieldwork educators usually spend less time modeling for students. When students have a peer to rely on for moral support and clinical reasoning, they tend to use each other to test assumptions and build confidence. The fieldwork educator may spend less time throughout the day shadowing a student, because the students view each other as role models and valid sources of feedback. The fieldwork educator can expect to review documentation or provide feedback on a therapy session only after the students have critiqued each other's work. Thus the fieldwork educator focuses the supervision on refining skills in clinical reasoning, observation, and intervention planning; and students practice the valuable skills of giving and receiving feedback.

An example of a shift in roles for the fieldwork educator comes from the psychiatric hospital where reviewing process at the end of each session was standard practice. Group processing frequently consisted of the student giving a few observations that he or she hoped were "right." The fieldwork educator made comments or asked questions and added observations from a position of power. Using the collaborative approach, the fieldwork educator listens to the students processing the group with each other. He or she then asks questions to

further stimulate clinical reasoning or clarify students' observations. The fieldwork educator may add a minor observation or pieces of information, but the students become the authorities on what just occurred in the therapy. All members of the collaborative group are contributing to the collective knowledge base while constructing and extending their own learning.

Ground rules and clearly delineated expectations help reinforce the collaborative learning process. Students are responsible for their own and each other's learning. To promote positive interdependence the students discuss problems and generate multiple options together before seeking advice from the fieldwork educator. In cooperative learning, the approval, feedback, and expectations are provided by peers as well as the fieldwork educator. When students work together toward a common goal, the mutual dependence often motivates them to work hard to help the group, and thereby themselves, succeed. For example, students review each other's progress notes, intervention plans, and other documentation before presenting them to the fieldwork educator. Moreover, students discuss positive and negative points of intervention sessions and client interactions, giving each other critical, complementary, and constructive feedback. The fieldwork educator must respect this process and remind students of the ground rules when they do not use each other as resources first.

Structuring Learning Activities

A critical aspect of collaborative learning is the way the learning activities are structured. As in all fieldwork situations, students should not be expected to perform intervention functions until they are competent to do so. However, an early learning task may be structured to facilitate collaboration. For example, a pair of students could observe the intervention environment and separately write down their observations and questions. The students then share their observations and questions with each other and generate additional questions. This face-to-face interaction produces collective observations that can then be shared with the fieldwork educator to generate a plan for the next step in the learning process. The students are actively creating knowledge and helping to direct their future learning.

In the collaborative approach, the fieldwork educator's client caseload may decrease during the fieldwork experience to a greater extent than in a one-to-one approach. For example, one student may work with four clients at a given time, while the pair may work with six to eight clients. This decrease in caseload may provide the fieldwork educator time for committee work, program development, and special projects. The fieldwork educator should plan to meet with the student pair regularly to process each day's events and plan for future learning activities. These meetings initially may be longer with a stu-

dent pair than they are with an individual, but they can decrease in frequency over time as the students become accustomed to helping to direct their own learning. The time can also be offset by the fieldwork educator's decreased caseload.

The students often share initial client responsibilities with each other. At the facility for persons with physical disabilities, students maintain a joint caseload and provide co-therapy for five to six weeks. After the sixth week, the students continue to problem solve together while they are gradually assigned an individual caseload. To promote individual accountability, students must demonstrate the skills they learned in their pair by actively designing and implementing intervention without their collaborative partner. The students continue to collaborate on any projects, case studies, or presentations. This collaboration allows students to complete meaningful projects that make a contribution to the occupational therapy department, to clients, or to a research project.

At the psychiatric hospital and the adult day programs, students may begin co-leading groups by the end of the first week of fieldwork. Having students take turns leading different parts of the group fosters individual accountability and active co-leadership. Students may continue to use co-leadership for groups, but they are assigned gradually increasing individual caseloads and individually take responsibility for documentation, intervention planning, and collaboration with the rest of the intervention team. Even when students have individual caseloads, positive interdependence is maintained because students must still seek feedback for clinical reasoning, understanding client interactions, and intervention planning.

In the adult day-program setting, three students participating in a collaborative fieldwork experience worked together to harness their creativity and develop a meaningful program for their facility. Previously, while using a traditional supervision model, student creativity was limited to choosing activities for and leading existing groups. By shifting to a collaborative model, the fieldwork educator enabled the student team to take on more responsibility by presenting them with the problem of designing the entire intervention program for the next month. The students combined their resources to meet the added challenge. The students worked with the program staff and clients and observed their routines to identify barriers and facilitators of occupational performance. Using an occupation-based perspective, the students asked clients about their likes and previous occupations. Based on their new understanding, the students developed new groups to address clients' goals and interests. By sharing group leadership among the three students and the program staff, the students initiated new groups in cooking, self-expression, physical activity, and art. Some groups ran simultaneously and were tailored to people at spe-

cific functional levels. At the end of the students' fieldwork experience, program staff observed clients do things they previously thought were impossible such as engaging each other in spontaneous conversation, requesting activities, and experiencing success at occupations they had abandoned. Several clients who had previously engaged in only one repetitive task began to regularly engage in and express enjoyment about the new groups.

Interpersonal Issues

If interpersonal issues threaten the learning process, the fieldwork educator must address concerns with all individuals involved. Eraut (1994) suggests that communication skills are most easily enhanced through practice and feedback with real people in true practice situations. Collaborative learning requires that students communicate with each other effectively and become adept at giving and providing feedback. According to the principles of collaborative learning, one-to-one meetings between fieldwork educators and students can undermine the process and should be avoided. Rather, the fieldwork educator encourages direct discussion of conflicts by the student group or pair and plays a mediating role if necessary. The fieldwork educator must be observant of the group dynamics among students because unspoken conflicts can easily undermine the collaborative learning process. As in any dynamic group situation, confrontation is essential and will usually help the student pair overcome competitiveness or differences in skill or style to attain a productive level of cooperation.

Additionally, both students' progress and areas for improvement are reviewed as a group with the fieldwork educator. This open forum allows critique to come from and be given to each member of the collaborative team, including the fieldwork educator. The fieldwork educator does meet with each student individually at the midterm point of the fieldwork experience to set and review individualized goals, and upon completion of the fieldwork experience to provide an opportunity for more personalized and private feedback.

The following vignette illustrates the five basic tenets of collaborative learning described by Johnson and Johnson (1990). Early in their fieldwork experience, one member of a collaborative student pair, Karen, had difficulty interacting with clients who were hesitant to attend groups or were resistive to intervention. The fieldwork educator and Karen's collaborative student partner, Sarah, noticed unproductive conversations that left Karen angry with some clients. After posing various questions to the student pair, the fieldwork educator explored her hypothesis that Karen's difficulty with these clients may be due to countertransference.

After refreshing the students' memories about countertransference and how it distorts the therapeutic relationship, the fieldwork educator wondered aloud to Karen and Sarah if that might be happening. Seeing Karen's discomfort at this possibility, Sarah discussed how another client produced negative feelings in her. This face-to-face interaction and group processing allowed Karen to admit that she always had difficulty with people who did not respond to her initial requests. She was able to name examples from her school and home life in which she became very angry with what others saw as minor resistance or a differing point of view. In the atmosphere of trust created by the open and honest discussion, Sarah described another instance when she noticed Karen interacting in a similar manner. Sarah reflected that she was troubled by the interaction, but did not do anything about what she thought at the time was Karen's problem. The group processing with the fieldwork educator helped Sarah recall that in the collaborative approach students "sink or swim" together. The fieldwork educator made her thought process explicit and modeled the cooperative skills needed for successful collaborative learning. Her open discussion using honest and direct feedback helped the students give and receive feedback.

For the remainder of the affiliation, Karen was individually accountable for reflecting on her interactions with clients and processing them with Sarah. Together the students reported to the fieldwork educator on their progress in building rapport with clients who initially seemed difficult to engage. Each student felt that her colleague had been very instrumental in the learning process. By the end of the fieldwork experience, all three members of the collaborative learning team felt that they had grown personally and professionally and improved their abilities to give and accept feedback. This vignette illustrates how potential barriers can be turned into assets in a collaborative learning situation. Our experience with collaborative supervision has been positive and empowering for students and fieldwork educators.

CONCLUSION

The 1997 American Occupational Therapy Association Philosophy of Education states, "Occupational therapy education is grounded in a shared belief that humans are complex beings engaged in an interactive process of continuous adaptation and growth influenced by their physical, social, and cultural environments" (p. 867). This philosophy is consistent with the collaborative learning ideal that emphasizes the role of context and socialization in the creation of knowledge. The experiences presented in this article demonstrate that collaborative learning can be applied in settings using either individual or

group approach to intervention and in both institutional and community-based settings.

The genuine applications of collaborative learning move beyond having one fieldwork educator supervise two students simultaneously. When the principles of positive interdependence, face-to-face interaction, individual accountability, cooperative skills and group processing are built into the structure of the fieldwork learning experiences, students learn to problem solve together and develop creative intervention plans. Our experiences have convinced us that a collaborative approach to preparing future practitioners offers students a model for life-long learning most congruent with the interactive environments of current practice.

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