Teachers' Needs of an Online Learning Community Assisting Professional Development

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Abstract. This study is a needs assessment of exploring teachers' needs in an online learning community that assists teachers' observational skills training. A qualitative study was conducted in 2004. The findings indicated teachers really need collaborative online learning community to share and exchange experiences but the content of the online learning community, professional facilitator, and technical support should be appropriately meet their needs. Additionally, teachers' needs of content of observational skills were collected by interviewing three types of participants: DESE Profession Staff in Special Education, Teachers in Missouri, and DESE Higher Education Instructors in Special Education.

INTRODUCTION

According to the Individuals with Disabilities Education Act (IDEA) Amendments of 1997, if exceptional students' behaviors affect their learning or others', their Individualized Education Programs (IEP) have to address their problem behaviors proactively. Thus, IEP teams have to implement a functional behavioral assessment (FBA); then, based upon the result of FBA, IEP teams can develop behavioral intervention plans (BIP) and decide appropriate placements. However, as Nelson, Roberts, Mathur, and Rutherford (1999) indicated, the public policy goes beyond the existing FBA knowledge base. Because of the full implementation of inclusion, both teachers who teach in the general classroom and those in special educational settings have to understand how to conduct a FBA. Teachers' observation skills influence the accuracy of information, which IEP teams get by conducting a FBA. Thus, this study is a needs assessment that starts with investigation of teachers' observation skills and a collaborative online learning environment, which directs the success of IEP. The focus of this article is to share the findings of what we observed from teachers of their needs of an online learning commmunity assisting their observation skills training.

By conducting a FBA, Quinn (2000) emphasized that IEP team members need thorough training to collect data by direct and indirect procedures, explain data, develop a BIP, and implement and assess the intervention. Furthermore, gathering information on students' problem behavior is the first and most important step because BIP is developed and implemented based on the information that is collected by IEP team members during students' school day. Before training educators how to develop a BIP, observation skills assisting educators to gather the clues regarding students' problem behaviors are the first step in training because they have to be implemented immediately. Moreover, emerging research has begun to indicate the importance of observation skills but teachers' capabilities of applying appropriate observation skills of FBA are still a problem (Fox, Gunter, Davis, & Brall, 2000). Therefore, the Department of Elementary and Secondary Education (DESE) of Missouri state government is planning to implement a series of training that start with enhancing teachers' observation skills, which affect the following stages of FBA significantly.

Furthermore, the DESE training program will utilize classroom observation practice materials provided on CDs. These materials were produced in a joint project of University of Missouri-Columbia and Arkansas State University with funding from the U. S. Department of Education. The training materials on the CD include explanations of the observation training procedures, classroom video segments for practice coding, structured paper/pencil coding forms, and coding answers to provide error and reliability checking for trainees. In addition, the observation training will be assisted by an online learning community, which provides a discussion and collaborative learning environment for teachers. The reason to establish a collaborative online learning community is based on collaborative nature of the IEP team, which stated in the Amendment of IDEA: IEP members have to work as a team to design students' IEPs. The success of IEP is directly related to the

collaboration of IEP team (Jolivette, Barton-Arwook, & Terrance, 2000). Also, the reliability of direct observational data is based on the collaborative discussion and comparison. Educators need to work with each other to generate higher reliability of observational information for IEP team. Hence, the online learning community, which includes both a discussion function and information and resources sharing, can facilitate training by providing collaborative discussion environment. For example, after teachers observe a student's behavior in a case study on the training CD, they can participate in the discussion of the online learning community in order to ensure their implementing observation skills correctly and appropriately. Also, they can login to the online learning community at any time and in any place to collaborate with others in solving the problems they encountered. As a result, in order to provide a series of apposite training, which are tied with teachers' needs deeply, the purpose of this study is to conduct a needs assessment by gathering information regarding what teachers' needs are in a collaborative online learning community for assisting observation skills training.

THEORETICAL PERSPECTIVES

There are three main theoretical perspectives of this study, which are observation skills of FBA, collaborative professional training, and collaborative online learning community. Detail introduction of these theoretical perspectives and how they related to this study are described below.

Observation Skills of FBA

Gresham, Watson, and Skinner (2001) defined that FBA "as a collection of methods for gathering information about antecedents, behaviors, and consequences in order to determine the reason (function) of behavior." It is a multi-method strategy that includes reviewing students' school behavioral records, classroom observation, and interview. The purpose of FBA is to identify the information, which is related to students' occurred and non-occurred problem behaviors in order to develop an appropriate Behavioral Intervention Plan (BIP) (Jolivette, Barton-Arwook, & Terrance, 2000). Furthermore, when the reasons for the behavior are determined, the gathered information will be used to design interventions in order to diminish problem behaviors and reinforce positive behaviors (Witt, Daly, & Noell, 2000). If the design of the strategies and intervention are able to succeed in decreasing or increasing students' behaviors, the information provide by FBA must be accurate and appropriate because of the significant effect on students' IEPs (Dieterich & Villani, 2000).

There are three methods of FBA, including direct/descriptive behavioral observation, indirect reviewing historical records and interviews, and experimental functional analysis (Gresham, Watson, and Skinner 2001). The first two methods are the main ways of gathering data of students' behaviors.

- Indirect FBA Methods: indirect FBA methods are conducted at the time when the problem behavior is removed away from the time and place of actual occurrence of the behavior (Gresham & Noell, 1999). Interview, reviewing of historical records, and behavioral rating scales are three indirect assessing methods used by educators usually.
- Direct/ Descriptive Behavioral Observation: when conducting a FBA, the direct data gathering method is observation in order to collect and record objective behavioral information. The observation-based recording methods are focus on assessing four aspects of information, frequency, temporality, intensity, and permanent products.

Mostly, FBA focus is on collecting information about students' behaviors and interventions. Dieterich, Villani, Brigham (2000) suggested that educators combine the indirect and direct assessment to pursue the most effective information of determining the reasons of students' behaviors. However, Gunter and Reed indicated that although teachers play the most important role of gathering information from the social and instructional interactions with students, their capabilities of applying observation skills independently and appropriately is still a question (Gunter & Reed, 1996; Gunter & Reed, 1997). Hence, if IEP can succeed in directing students' behaviors, teachers' observation skills are needed in order to collect appropriate information though they can get students' historical records from school or conducting indirect interview. When conducting direct behavioral observation, the observers are required to watch and record students' behavior at the same time when the behavior is occurring. The purpose of direct behavioral observation is to collect the information of appropriate or in-appropriate behavior (depending on the purpose of the stages of the FBA), how students interact with the environment, and the change resulting from the intervention, which can be observed before and after intervention. There are three categories of observational methods applying in the observation procedure: event-based Recording, interval-based Recording, and time-based Recording (Gresham, Watson, Skinner, 2001).

In addition, Shapiro and Shapiro (2001) presented students' learning will be more effective if teachers can understand how to meet students' needs. Thus, teachers are responsible for observing students' strengths and

weakness and providing exactly what they need. Likewise, IEP team member are in charge to observe students in order to collect any relevant information, which can help them make appropriate decisions for students with disabilities. Though direct behavioral observation is time consuming, there are two major benefits: first, it enhances the reliability of data when IEP team members collatorate to compare the behavior rating scales with each other because different observer might report different result of the observation. Comparison can reduce the bias of the collected data. Second, observing the behavior and the context can quantify the severity of the problem behavior. The behavior rating scales can provide the quantitative records of how frequent the behavior happens, which help IEP team to determine the severity of the behavior. By providing both quantitative and qualitative information, educators can triangulate the reasons of students' behavior (Dieterich & Villani, 2000). Obviously, the significant effect of the direction behavioral observation to IEP is not undoubted.

Collaborative Professional Training

Teachers' lack of knowledge and skills of observation skills is an unquestionable truth. Conroy, Clark, and Fox (1999) indicated that educators not only need in-depth training in conducting FBA, including indirect and direct assessing skills and designing and implementing intervention, but they also need to be educated how to work in a team and to collaborate with each other because the implementation of FBA is an involved collaborative work. In addition, in order to ensure IEP team members have enough capabilities in executing a FBA, State governments have implemented a series of FBA training. According the experience of East Tennessee State University in 1998 (Vaughn, Hales, Bush, Fox, 1998), the trainees who have participated the training are encouraged to provide workshop training for their colleague in their schools. Though every individual educator has a responsibility to collect information, gathering information is shared within the team. Hence, the FBA training was implemented in a team-based style. In addition, the formats of team-based training include lecture, role-playing, small group exercises, discussion, and brief homework assignments. Vaughn, Hales, Bush, and Fox also emphasized several issues have to notice. First is the size of the team: the workshop could have many people but the size of a collaborative team is between four to six because a larger group size causes the difficulties of implementation of group work. Second, if educators who have been trained can educate their colleague, it will enhance the reliability and validity of FBA in schools. But educators who are expected to train others should have enough supports to reduce the additional load of their work. Finally, a convenient means of communicating should be establish in order to support educators' group work. Also, as particular instruments and procedures of FBA are developed separately, technologies of synthesizing information and resources should be generated and provided.

Barab, Barnett, & Squire (2000) indicated that most researchers and teachers apply the knowledge and practice models to eliminate the gap that has existed between research theory and practical teaching settings. Apply these models in observation training, a successful professional development of teachers' observation skills needs researchers' and educators' sharing experience and exchanging knowledge. The relationships include educators to experts and educators to educators. In addition, Englert and Tarrant (1995) emphasized that enhancing teachers practiced knowledge and skills require a professional development opportunity whose activities are designed to link with teachers' daily experience within classroom. Therefore, in the DESE observation skills training program in 2005, trainers will not only provide lectures of knowledge and skills but also assign classroom observation practice CD, which include real school setting settings and interactive practice tools to participants. Trainees can apply what they learn in workshop to conduct or practice by using real cases that are similar with the settings where they are going to observe. Thus, a collaborative online learning community assisted the observation skills training can faciliate teachers short-term collaborative practice and long-term collaboration in collecting students' behavorial data.

Online Learning Community

There are no doubts teachers and relevant personnel have to collaborate with each other in the IEP team. Roll-Pettersson (2001) reported that inclusive settings, which require general teachers to become involved in the IEP team, increase collaboration needs. Also, Little (1982) emphasized that the performance of a school improved when teachers had opportunities to be involved in frequent and constructive conversation with other teachers or experts. Also, knowledge is constructed through working on tasks with others, and learners can learn much in discussion and sharing (Barab and Duffy, 2000). Therefore, during the conversation, teachers can share their perspectives and discuss interventions, teaching strategies, and students' needs, etc, which help them to establish the experiences of assisting students with disabilities and learn from different perspectives.

However, because of the limitations of teachers' time and location, it is not easy to link teachers with other professionals or colleague who live in remote places but have similar problems and experiences. Barab, Barnett, & Squire (2002) presented that an online learning community can satisfy teachers' needs of having opportunity of sharing and discussing with others, and teachers can discuss and collaborate frequently in facing the changes

of special education. Within an online learning community, participants "who are differently positioned from one another and who bring different kinds of knowledge and experience to bear on the collective enterprise" (Cochran-Smith and Lytle, 1999, p.278). In addition, because IEP team members have to collaborate and consult with each other as a community, online learning community that supply opportunities for collaboration, can provide teachers and relevant personnel with an open, interactive, sharing, and collaborative learning environment. Therefore, in order to promote teachers' training performance of applying observation skills and provide a discussing and collaborative environment, which can facilitate teachers' observation training, a collaborative online learning community will be established. Furthermore, the asynchronous and synchronous characteristics of on online learning community not only can avoid the two main limitations of teachers, which are time and location, but also help educators improve their collaborative skills by joining the activities of the community. Rogers (2000) emphasized that working with others through collaborative tasks can provide a much richer learning experiences. According to teachers' lack of collaborative experience, a collaborative online learning community creating an effective collaborative learning, developing interdependent and relative interaction between members, engaging members into an effective learning are needed for teachers (Curtis and Lawson, 2001).

RESEARCH METHOD

Method and Participant

This study is a need assessment investigating teachers' needs for a collaborative online learning community that assists observation skills training. According of the purpose of this study, the researcher triangulated teachers' needs from multiple and reliable perspectives by interviewing three stakeholder groups: the DESE staffs, teachers of Missouri State, and higher education instructors of special education. Below are detail introductions of the three stakeholder groups of the participants.

- Group I: DESE Profession Staff in Special Education: the researcher invited three DESE staffs who are related to this training project to participate in the interview. The information gathered from them is the background description of the training, including their perspectives and expectations of observation training.
- Group II: Teachers in Missouri: there are eight teachers who had been recommended by the higher education instructors and were willing to participate in the research. These teachers included special and general education teachers who work with students with disabilities.
- Group III: Higher Education Instructors in Special Education: the third stakeholder group is the higher education instructor. The researcher interviewed six professional instructors who teach or are familiar with observation skills. From their professional perspective, the researcher can collect the information about what teachers' needs are when conducting a collaborative online learning community assisting observation skills training.

Data Collection and Analysis

Based upon the research purpose, we conducted in-depth interviews to get the effective information triangularly. According the limitation of the location, we conducted phone interviews. All the interviewees were informed the nature of this study and asked to share their perspectives about needs of applying a collaborative online learning community to assist observation skills training. After transcribing the interviews, we will use Nvivo, a qualitative analysis software, to analyze the collected information. Nowadays, this study is in analysis stage. Thus, we haven't completely analyzed all the data collected. In the finding section, we will briefly describe what we found that is interesting in constructing an online learning environment. Once we complete the analysis in December 2005, we will add the findings to this section.

By interviewing the three stakeholder groups, we can triangulate the needs of a collaborative online learning community to assist observation skills training from multiple and reliable perspectives. First, the information gathered from the DESE staffs helped us understand their perspectives and expectations of observation training assisted by a collaborative online learning community. Furthermore, based on DESE staffs' perspectives, we shared the training information to teachers, and collect the information about what their needs and difficulties are. Finally, higher educators provided their professional perspective of what teachers' needs in implementing observation skills assisted by an online learning community. While conducting interviews, the researcher was an information distributor who gathered the information and shared with these stakeholder groups. In the end, the result of this study should help DESE design, implement, evaluate, and revise the teachers' training which fit to teachers' real needs successfully.

FINDINGS

According to the data collected, there are three aspects that are deeply related to teachers' needs in participating in an online learning community facilitating teachers' observation skills training. First of all, content of an online learning community (OLC) is an essential factor, teachers consider. Critically, the first impression of an OCL affects teachers' use in the future. Teachers indicated that they don't have enough time to login an online learning community very frequently. Therefore, when they find out the information of the learning community cannot help them right away, they will never go to the learning community again. Also, what they need most now is to collaborate with others who have same problems and situations to discuss and share experiences. Unfortunately, there is no a systematic platform and learning community provided. In addition, professional facilitators are what they need. Teachers and higher educators emphasized that it is necessary to have experts to facilitate the collaborative tasks or discussion in an OLC. Because teachers' strategies of collect students' behavioral information affect students' development very much, they need professional suggestions to guide them how to solve students' problem and collect appropriate information. Finally, technology support is a basic aspect. Some teachers don't have experience in learning in an OLC. They strongly suggested that before asking teachers learn in an OLC, the training to teach them the functions and any relevant technical skills are necessary. Also, the Internet access and speed should be supported appropriately. Because of their un-enough time, they don't have much time to deal with the technical problems that decrease their motivation in using an online learning community very much.

CONCLUSION

Obviously, teachers need a collaborative online learning community to facilitate their observation skills training. A collaborative online learning community don't only reduce the limitations of teachers' time and location but also provide them professional resource and collaborative opportunities. There are no doubts that the effectiveness of teachers' training would be higher, if trainers can apply an collaborative online learning community to support teachers' needs appropriately.

REFERENCES

Barab, S. A., Barnett, M. G., & Squire, K. (2002). Building a community of teachers: Navigating the essential tensions in practice. *The Journal of The Learning Sciences*, 11(4), 489-542.

Barab, S. A., Barnett, M., & Squire, K. (2000). Developing and empirical account of a community of practice; characterizing the essential tensions. *The Journal of Learning Sciences*, 11(4), p489-542.

Cochran-Smith & Lytle, S. L. (1999). The teacher researcher movement: A decade later. *Educational Researcher*, 28(4), p15-25.

Conroy, M., Clark, D., Gable, RA, & Fox, J. (1999). The challenge to prepare education personnel to conduct functional behavioral assessment. *Preventing School Failure*, 43, 140-145.

Curtis, D. D., & Lawson, M. J. (2001). Exploring collaborative online learning. *Journal of Asynchronous Learning Networks*, Vol. 5, Issue 1.

Dieterich, C. A., & Villani, C. J. (2000). Functional behavioral assessment: Process without procedure. *Brigham Young University Education & Law Journal*, Issue 2.

Englert, C. S., & Tarrant, K. L. (1995). Creating collaborative cultures for educational change. *Remedial and Special Education*, 16, 325-336. (EJ 513554).

Fox, J., Gunter, P., Davis, C., & Brall, S. (2000). Observational methods in functional behavioral assessment: Practical techniques for practitioners. *Preventing School Failure*, 44(4), 152-157.

Gresham, F. M., & Noell, G. H. (1999). Functional analysis assessment as a cornerstone for non-categorical special education. In D. J. Reschly, W. D. Tilly, & J. Grimes (Eds.), *Special education in transition : Functional assessment and non-categorical programming*, Longmont, CO: Sopris West. p4979.

Jolivette K., Barton-Arwood, S., & Terrance, M. S. (2000). Functional behavioral assessment as a collaborative process among professionals. *Education and Treatment of Children*, Vol. 23, Issue3.

Little, J.W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19*(3), 325- 340.

Nelson, J. R., Roberts, N., Mathur, S., & Rutherford, R. (1999). Has public policy exceeded our knowledge base? A review of the functional behavioral assessment literature. *Behavioral Disorders*, 24, p169-179.

Quinn, M. M. (2000). Functional Behavioral Assessment : the Letter and the Spirit of the Law. *Preventing School Failure*, Vol. 44, Issue 4, p147, 5p.

Rogers, J. (2000). Communities of practice: A framework for fostering coherence in virtual learning communities. *Educational Technology & Society*, 3(3). [verified 26 Aug 2002]

Roll-Pettersson, L. (2001). Teacher Perceptions of Supports and Resources Needed in Regard to Pupils with Special Educational Needs in Sweden. *Education and Training in Mental Retardation and Developmental Disabilities*, 36, No. 1, p42-54.

Dewey, J. (1933). *How we think.* Boston: D.C. Health.

Shapiro, R. & Shapiro, R. G. (2001). Developing Observational and Reinforcement Skills. *The Delta Kappa Gamma Bulletin*, Vol. 67, No. 4, p17-22.

Vaughn, K., Hales, C., Bush, M., Fox, J. (1998). East Tennessee State University's Make a Differentce Project: Using a Team-Based Consultative Model to Conduct Functional Behavioral Assessments. *Preventing School Failure*, Vol. 43, Issue 1.