ABSTRACT

This article reports on how social communication was used to enhance a network for the development of inclusive teaching practices within the framework of an action research project. A team of 15 teachers at a Free State school embarked on action research to reflect on the inclusive practice in relation to inclusive teaching and learning with a view of improving their inclusive teaching skills. Data was collected using discussions, observations, field notes, and focus group interviews. Several communication platforms were created by the group to advance this ideal and to share information, namely Facebook, mobile communication (SMS/MMS), teleconferences, meeting of the community of enquiry, brainstorming meetings, discussions, use of diaries, and group interpretative engagements. Among the findings of the study is that social communication via social media as discourse has created an appropriate platform for coherent and empowering engagement about developing inclusive teaching practices and has resulted in a sustained learning environment. The social communication network provided a framework for reflection on practice resulting in the change of attitudes and improved inclusive pedagogy.
BACKGROUND AND AIM
Since 1994 the South African education system has undergone serious transformation. In 1997, the National Commission on Special Needs in Education and Training and the National Committee on Education Support Services published a report on the quality of education for all, with special reference to overcoming the barriers to learning and development (Department of Education 1997). The report constituted the first step in transforming the educational needs of all learners and moving towards inclusive education (Department of Education 1997: 1).

Despite this move, some teachers in South Africa have little or no skills to deal inclusively with learners with special education needs, and there are different ways in which schools implement and conceptualise inclusion. This is despite the adoption of the ambitious Education White Paper 6 in 2001 (Department of Education 2001). The strategies for developing inclusive practices remain a daunting task among teachers.

The implementation of inclusive education has resulted in many challenges due to the kind of teachers in South Africa, for example, teachers are believed to be less collaborative, reflective and critical. This is further compounded by the legacy of the past which is characterised by less involvement of teachers in curriculum and policy development. The situation therefore call for alternative ways of enhancing social engagement among teachers to enable them to begin collaborating, reflecting and probing critically their pedagogical approaches towards enhancing inclusive teaching and enhancing sustainable learning environments.

Against this backdrop, the study sought to provide an answer to the following research question: How can social communication be used to enhance the development of inclusive teaching practices for sustained learning environments?

To answer this overarching question the following objectives were stated:

- to conceptualise social communication within the discourse of inclusion;
- to determine the extent to which social communication within the framework of action research can be used to enhance inclusive pedagogy; and
- to suggest ways by which social communication within action research mode may be used to develop inclusive teaching.
CONCEPTUALISING SOCIAL COMMUNICATION

Social communication means the sharing of intentions, aims, activities, and results between interdependent individuals within a social network (space) (Mahlomaholo & Netshandama 2011). Social communication is regarded as a force that can foster collaboration, reflection, and critical engagement (Ellison 2008). While social communication is conceptualised in varied contexts, these contexts tend to present similar features, namely, they are people-driven and influenced by the desire to share information among them in order to be part of an established communication discourse with a purpose of achieving a set of outcomes. Social communication is enhanced when individuals become part of a networked group.

According to Cho, Gay, Davison and Ingraffea (2005) a relationship exists between social communication and learning. The sharing of information results in the mutual learning between members of the social network. Thus, social communication fosters collaborative learning. Authors such as Tomaselli (1997) draw linkages between social communication and action research. It is believed that action research fosters interactive communication between participants, resulting in a concept referred to as participatory communication. For the purpose of this study, social communication is therefore conceptualised as a network of conversations and interactions between the members of the action research group in pursuit of an objective to develop practices of inclusion within their pedagogy.

EPISTEMOLOGICAL STANCE

Firstly, the epistemological knowledge view (how knowledge is acquired) and ontological reality view (how reality is perceived) are crucial positions in any research inquiry. In this study, these two knowledge views are premised on the fact that knowledge is not produced through an objective researcher who collects facts about the social world and builds up an explanation in a chain of causality (positivism), but that reality is socially constructed rather than objectively determined (TerreBlanche & Durrheim 1999). This view is consistent with the traditions of qualitative and case-study research (Noor 2008). More recent developments have given rise to what is known as the post-postpositivist paradigm, which does not consider the causal relationships between facts and measurements to be superior to people’s constructions of and the meanings attached to their experiences (Blake, Smeyers, Smith & Standish 2003). This research is premised on the assumption that subjectivity cannot be divorced from the process of inquiry (Leedy & Ormrod 2005). The subject has to be listened to, and reality is mediated by the perceptions and experiences in the social world (Niemann et al. 2000).
This research project therefore shares the opinions of Blake et al. (2003), namely the critical theory assumptions that the participants’ views are important and should be taken into consideration. These assumptions demonstrate the ontological position adopted in this study:

- All thought is mediated by power relations that are socially and historically constituted;
- There is a reality “out there”, but it is mediated by a socio-historical context;
- Facts cannot be removed from the domain of value;
- Relationships between concepts and objects are never stable and are mediated by capitalist production and consumption;
- Oppression has many faces; and
- Positivist research generally focuses on a reproduction of the current status quo.

The above tenets of critical theory are significant in that the research attempts to place the particular situation into perspective and apply a critical perspective to the existing structures and institutions in order to change and improve the conditions.

Secondly, the study has borrowed the principles of the theory of communities of practice. Although this theory is not applied in totality, the study has drawn its foundation from the assumption that a community of practice must be enquiry-based. It must depart from the premise that critical reflection on practice thrives if there is collaboration among practitioners; therefore, the formation of collaborative communities with a shared goal to improve their practice is crucial.

The community of enquiry within a community of practice is a collective intended to probe the prevailing practice by asking the following questions (Reason & Bradbury 2006: 133):

- How do practitioners perceive a situation or problem?
- What results do they wish to achieve?
- What strategies do they intend to use in order to achieve these objectives?
- What were the actual outcomes of these strategies?
- To what extent did the outcomes match the intended results?
The above-mentioned questions are significant for the process of enquiry. The community of enquiry determines patterns from the data through the use of interpretive process by

- looking at multiple interpretations of data (intersubjective testing);
- making comparisons between what teachers say they do (espoused theory) and what was observed (theory in use);
- reflecting critically, using the “ladder of inference”, which is the interpretation of data from a concrete to a more abstract level of reasoning; that is, if no consensus can be reached, practitioners could descend to a concrete level to identify an area of divergent thinking.

As the interpretive process does not always guarantee consensus, the testing of a theory adopts the principle of the falsifiability of the theory. This process provides alternative solutions by suggesting a change of beliefs, perceptions and practice to inform transformation (Reason & Bradbury 2006). The authors further posit that change will take place at two levels, namely at the level of strategies (single loop), and at the level of conditions (double loop). Change at the level of strategies is often easy, whereas change at the level of conditions is complicated because it involves changing assumptions, goals, values, and beliefs. When the community of enquiry is probing practice, reflecting on it and drawing conclusions, action-learning takes place because the group learn through the experiences of their actions (Brockbank & MacGill 2004). The process of learning collaboratively as a community is important for empowering the practitioners and increasing their participation (Truman, Mertens & Humphries 2000).

In this study it is therefore asserted that communities of practice must engage in some form of action research and, consequently, action learning to improve their practice. This study therefore adopted a critical collaborative form of action research through which the participants critically reflected on their practice in order to enhance an inclusive pedagogy.

**ACTION RESEARCH: A DESIGN FRAMEWORK**

According to White (2005), action research was conceptualised by Lewin (1952) and developed further by Kolb (1984), Carr and Kemmis (1986), and other researchers. Action research is a complex process that recognises the role of the teacher as researcher. For example, Mohr (2004; in White 2005) acknowledges that action research is a method of research managed by teachers who elect their research group, which contributes to the planning and monitoring processes. It
is transformative in nature and offers teachers the opportunity to collaborate. Teachers taking part in action research should have certain characteristics and behave in a particular manner; for example, Pollard (2002) postulates that teachers should have the following characteristics in mapping the development through action research:

- the systematic questioning of their own practice as a basis for development;
- commitment to study their own practice; and
- the ability to test a theory in practice (which happens when teachers have a strong network).

The network between teachers manifests itself in what is called a “research forum”, which is a platform created to deal with conclusions, critique, and the testing of new ideas (Pollard 2002). Research is mostly public in that stakeholders reflect on their practices publicly through the analysis of data and evidence collected – what Ainscow, Booth and Dyson (2006) refer to as “group interpretive process”. Through evidence-based data, teachers begin to improve on their practice – a phenomenon referred to as “evidence-based teaching” (Hammersley 2007).

In similar vein, Altrichter and Elliott (2003) mention that during the action research process teachers assume what is called a “double task”; that is, the role of teacher and researcher. Teachers practise and reflect on their practice using action research either with themselves or with colleagues through a process that Posch (1996; in Altrichter & Elliott 2003) calls “dynamic networking”. The process of action research is characterised by the process of linking theory with practice, maintaining the conceptual and perceptual knowledge, value objectivity and subjectivity of the research and focusing on the individual or group (Altrichter & Elliott 2003).

Thus, the process is thus teacher-driven and management of the school should not dominate the process. Hence Fullan (2001) and Somekh (2006) caution against management-led whole-school action research, which is intent on disguising teacher involvement while imposing ideas on teachers.

Unlike in management-led whole-school action research, teachers negotiate and agree on the research questions and the means to find answers to them. Action research adopts an emancipatory approach in looking critically at power relations and engaging with the broader political structures to ensure social justice. Somekh (2006), drawing on Habermas’s concept of “communicative action”, Marx’s concept of “false consciousness”, and Foucault’s “deconstruction
of the regimes of truths”, supports the argument that action research attempts to emancipate the socially oppressed through the deconstruction of meaning through the participation and involvement of teachers as researchers. It follows that the process is dominated by teachers forming networks and contributing through collaboration to learn more about their practices. However, Ainscow et al. (2006) caution with regard to the contribution of practitioners as being above critique. They suggest that the action research process should not lose its element of being reflective and critical, and that to strengthen the outcomes of the process, the voices of the practitioners must be supported by providing research training and providing different theoretical perspectives to clarify the views of the practitioner.

Action research has high triangulation potential as different sources of data are collected during the process; for example, Ainscow et al. (2006) describe this form of research as a process whereby teacher researchers engage in processes of triangulation such as observation, interviews, pictures and videos. The process of data analysis and interpretation varies according to the interests of the researchers. The notion of a group-interpretive process, which is the process of teachers collaboratively embarking on reflection and meaning-making, becomes crucial in the interpretation of data. Such interpretations may also be emphasised using images in reporting the results of action research, because images complement reports where data cannot be reported in the form of words (Somekh 2006). The process is illustrated by Kemmis and McTaggart (1998), for example, by means of a four-phase model:

- The plan: a flexible, unpredictable anticipation of what will occur in the future;
- The action: a deliberate and controlled activity process often defined by putting ideas into action, as influenced by past practices and critical reflection on the changes between past and new practices;
- Observation: documenting and recording the effects of action in an open way in addition to recording the unexpected, using mostly research diaries;
- Reflection: recall of action as observed, active engagement with data to make sense of it by giving meaning to it and interpreting the data, which is evaluative in nature.

**Action research as prerequisite for forming a social network**

Firstly, in developing a social network this study departed from the premise that critical reflection on practice thrives if there is collaboration among practitioners; therefore, the formation of collaborative communities with a shared goal within
an action research mode to improve their practice is crucial. Retallick, Cocklin and Coombe (1999) describe a community as a social organisation which is characterised by relationships and the sharing of ideas. It is a body that binds people together to a set of values and ideas.

Practitioners are afforded the opportunity to interact with one another, reflect on their practice, and begin to change their attitudes and beliefs towards an inclusive teaching practice. Not all communities are engaged in action learning, which is learning through collaboration by members of a team. The reason is that, for such learning to take place, a community of practice must be developed. Such a community of practice is therefore defined as a group of practitioners that share a common practice through a set of agreed values, knowledge, terminology and procedures, which offers scope for problem-solving (Wenger 1998). The purpose of such a community is to create knowledge, clarify their perceptions of reality and goals, and devise strategies for achieving them. Data is collected for the purpose of solving their immediate problems by building local theory, and testing it through action by inferring from the observable behaviour in order to institute change. The role of the researcher is to create conditions under which practitioners can test theories of practice for the purpose of learning (Reason & Bradbury 2006). The process by which a community of practice probes its practice occurs within a community of enquiry. Retallic et al. (1999) refer to the community of enquiry as a community of learning bearing similar attributes such as collaboration, engagement, reflection and the development of the local theory that addresses a problem as identified by the practitioners. The community of enquiry embarks on the process of testing local theories.

**Research process**

The research was conducted as an action research case study of a secondary school where the researcher was principal. The study was initiated by the researcher, but worked with 15 teachers. The 15-member community of enquiry therefore jointly determined the purpose of the study which was to develop practices of inclusion. Because teachers thought there was a need for them to reflect on their practice in relation to inclusion, the action research method was more appropriate.

The school was chosen as a site for social network because it serves a previously disadvantaged community with a student population with diverse socio-economic, linguistic, ethnic and cultural backgrounds which presented barriers to learning, making it more relevant in exploring practices of inclusion. The school had all the facilities required for the network which included meeting rooms and electronic equipment such as computers to use for communication. The research process took the form of collaborative action research. Firstly, teachers
acknowledged that they need a mechanism to develop practices of inclusion and therefore aimed to improve their practice. Teachers were collaborative in that they worked together and supported each other to develop the practices of inclusion. The process was critical in that the teachers questioned and challenged each others’ existing notions of practice, thereby resulting in the development of their own local theory.

The sample of 15 teachers, who were conveniently sampled in that they voluntarily took part in the study, was spread as follows: junior teachers (0 to 10 years of teaching experience), specialist teachers (10 to 20 years of teaching experience), and senior specialists (20 and more years of teaching experience).

The research process was a four-stage action research study consisting of the following stages: planning, observation, action, and reflection. Figure 1 illustrates the action research process:

**FIGURE 1: THE FOUR-STAGE ACTION RESEARCH PROCESS**

Data was interpreted in phases as the research progressed. Group interpretative meetings were held after each phase to analyse data. Bryman and Burgess (1994: 6) explain the descriptive or interpretive method of data analysis is one that seeks to establish a coherent and inclusive account of a culture from the point of view of those being researched. The meetings took the form of a dialogue posted on a social network. The transcripts of extracts (quotes) posted and downloaded from the social network were read (usually from the minute book, diaries and
observation schedules), and categorised into themes. Quotes were then assigned to themes, after which patterns were determined to derive meaning and interpretations.

The quality of the data analysis depended on the researcher’s interpretation of the data. Mouton (2001) refers to interpretation as the process of relating the findings of the research to the theoretical framework, either by confirming or falsifying the new interpretation.

**Creating a social communication network**

The initial preparation began by obtaining permission from the Free State Education Department to carry out the research project, which included writing an official letter to request such permission. Once the permission was granted, the author then asked for the volunteers among the teachers to establish the research task team for the project. To compensate for the major disadvantage of action research, which is the lack of research skills of the volunteer researchers, the author conducted a one-day mini-workshop to familiarise the research task team with their roles and duties. A duty list was drawn up jointly with the teachers to explain how the knowledge would be shared among the research team, how meetings would be run, who would chair these meetings, who would take minutes, and how decisions would be taken.

To clarify my role as a researcher in this process: While my role was to be part of the research team as an equal partner, I however had to give purpose and direction for the study since the teachers were doing this kind of research for the first time. At the start, I dealt with ethical issues. During the first stage of our research, the teachers requested that I give them a presentation on current research literature on inclusion. While I thought it would be easy for teachers to engage freely about their practices during our discussions, that was not the case. From time to time I had to initiate the discussions. As requested by the teachers, I kept records of our proceedings and allowed the teachers access to it whenever it was needed.

We created a group on Facebook where we convened the meetings to brainstorm the concepts *inclusive education*, *inclusive teaching* and *inclusive class* in order to establish a common understanding of what it meant in the context of this study, and to determine how inclusive we thought our teaching was. The discussion questions were the following:

- What do we understand by *inclusive education*, *inclusive teaching* and *inclusive class*?
- How inclusive do we think our teaching has been?
Teachers were allowed to engage on Facebook in an open discussion for them to air their views. At the request of the teachers, I uploaded a presentation of some literature on inclusive practices so that we could compare our understanding and that of the literature.

To elucidate the notion of inclusion from the perspective of learners, we held an open teleconference focus group interview session with the Learner Representative Council (RCL), a body of 20 democratically elected learners, elected by learners, and representative of all grades at the school with the aim of looking after matters of learner interest, to discuss questions such as, “Do you think all learners are catered for by the teaching in your classrooms?”; “Which activities and teacher practices in your opinion help you to learn effectively or fully take part in the class?”; and “What would you like to be changed for you to be academically well catered for in your classes?”.

Observations were used on two accounts, firstly, to determine how inclusive our current practice was, and secondly, during the action stage when practices were adopted in the class to develop its inclusive application in the school context.

During the first phase of observations, notes were made mainly from memory and uploaded to Facebook for other members to view and engage with. The observations were systematised by the use of a pre-planned observation schedule which addressed the research questions. Teachers were expected to keep daily reflection diaries and upload the observations on a social network. Observations in classrooms were integrated into the IQMS (Integrated Quality Management System), which is the appraisal system used in South African schools to observe teachers in practice, a move which was aimed at minimising disruption of normal teaching routines. The following topics (as determined by the participants) guided the observation in relation to inclusion:

- curriculum-related aspects of the class (planning, presentation and assessment of lesson, interaction, participation, and sitting arrangements during the lesson);
- teaching (pedagogic) aspects of the class (teaching approach and strategies, maintenance of discipline and motivation, the role of assistant teachers and the use of technology in the class);
- learning aspects of the class (use of learning approaches, e.g. cooperative learning, group work, peer tutoring and collaborative problem-solving); and
- social aspects of the class (communication, diversity, relationships and values in the class).
During the second phase of observations we first agreed on the criteria for inclusion, then paired one another according to curriculum relevancy, before conducting observations for six months.

Once the observations were complete, in-depth interviews were conducted with teachers to reflect on what have been observed, and to gather more data on themes that might have emerged from the observation. Interviews were done electronically by posting questions on the network and providing answers on the social network. Interview schedules with open-ended questions were used. Open questions allowed teachers to recount and reflect on their practices and broadly agree on the meaning of effective classroom teaching practices that promoted inclusion in their context. The process resulted in a consolidated list of practices which emerged to enhance inclusion in the school context.

Having identified and agreed on classroom practices that were regarded as effective in promoting inclusion, we collaborated with the research task team to draw up an action plan. The action plan was a detailed implementation programme to adopt effective classroom practices identified in the classes and to evaluate how these promoted inclusive teaching and learning. The action plan was uploaded on the network for all members to see. The following were the proposed indicators of the classroom teaching practices that were effective (the proposed indicators were negotiated with the teachers themselves, adapted from the index of inclusion) (Booth & Ainscow 2002):

- high participation of all learners; high interaction and effective communication between all the learners and the teacher; high cooperation among all learners;
- high inclusive and differentiated instruction (caters for all learner needs); atmosphere that highly fostered good human relations; highly maintained discipline in the class; and
- high tolerance of diversity; high motivation of all learners; achievement of expected outcomes by all learners.

During the action phase in the classrooms teachers were expected to record their experiences in the daily reflection diary and then upload their notes on the network for all members.

At the end of the action phase, we conducted follow-up interviews by posting open questions on the network for teachers to evaluate the effectiveness of teaching practices that we implemented in our classes over a given period.

Lastly, we called a meeting of all members using a mobile service (SMS/MMS) wherein we drafted a summary of conclusions and findings. The following
questions were asked during that meeting in an attempt to build a local theory, “What was our understanding of inclusive education, inclusive teaching and inclusive class?”; “What did the literature say about the concepts and how inclusive did we think our teaching was?”; “What was the research telling us?”; and “What have we learned from the project?”.

FINDINGS
The study resulted in several findings informing how social communication can enhance the development of inclusive teaching practices.

Creating a platform for engagement
In the first instance, the social communication network created a platform where teachers can engage about what constitutes effective practice. Teachers were provided with the space to listen to and share ideas with their colleagues which is fundamental to the process of developing inclusive practices. The following quote attests to this:

I have learned to listen and share ideas with my colleagues.

Exploring alternative ways of practice
Usually when people work as individuals they are not in the position to explore alternative ways of doing things. Social networks provide an exploratory arena for practitioners to create, test and implement new ways and ideas. This is what the teachers had to say:

I have discovered that there could be alternative ways of doing things.

I had an opportunity to start a new way of teaching successfully.

I think it is good to look at what you are doing, reflect on it and to [make] some improvement.

Teachers regarded this kind of engagement with their colleagues as informative; most of them felt it should be done more frequently.

Enhancing collaboration among stakeholders
The ability of stakeholders to collaborate was positively enhanced by the shared platform. Collaboration is regarded as pivotal for the development of inclusive practices. Teachers and learners were able to work together effectively and this resulted in effective cooperation which led to a more inclusive approach to doing things:
I think learners’ remarks help us to have a better understanding of their expectations.

The same sentiments were shared by the learners who participated in the study, for example one of them indicated:

It was good doing things together with the teachers and being part of how classroom activities are planned.

**Social communication and change**

The study found that social communication through social media may be used to enhance change effectively. While it seemed as though there was a strong indication that a sudden change of approach affected both the teacher and the learner, and that the time-frame of the project was too short and did not allow learners to adjust appropriately, it was evident that the process had an impact on the ability of both teachers and learners to change:

I think the time we got was short for me and the learners to adjust fully to the newly introduced way of teaching and learning, but at least we could change the old ways of doing things and implemented new ways.

**Social communication and the administrative aspect of teaching**

In a school situation it is sometimes a challenge to store and retrieve information promptly. The use of social communication technology such as Facebook provides an alternative way by which information is stored. For example, with regard to how the records of the discussions were kept, teachers indicated that records were properly kept because they had access to it, and were able to retrieve it easily and promptly:

I am happy that we did not have to look through files to get information, by a click on the computer and sometimes a cellular phone one was able to access it.

I am overloaded with marking work; sometimes it is difficult to remember everything that we said or did but, through Facebook one is able to access our activities whenever needed.

**Changing teacher beliefs and attitudes**

Teachers are sometimes confronted with the challenge of changing how they believe things should be done. Inclusive practices are associated with a change of attitude towards learners that are different in order for teachers to respond to the pedagogic needs of all learners in the classroom. The study has shown that through social communication networks, teachers were able to reconsider
their beliefs and attitudes towards what they perceive to constitute an inclusive practice:

We were able to change our positions with regard to how one should teach; I have considered a few options from the colleagues.

RECOMMENDATIONS AND CONCLUSION

While the use of social communication has proven to be effective in this study it must be kept in mind that in some schools it will be difficult for teachers to engage using social communication networks such as Facebook due to lack of financial resources, or electronic devices such as computers. Furthermore there are still pockets of teachers without the skills to use electronic media. However, it seems appropriate to recommend that in developing practices of inclusion the use of social communication networks should be explored. Teachers must be encouraged to reflect on practice through the use of a communication network. Teachers should be trained to use electronic communication devices in order to be able to reflect, collaborate and critique their practices through open communication.

In conclusion, the study has laid a foundation for the use of social communication in developing practices of inclusion in schools. It has gone far in highlighting the significance of social communication in enhancing teacher dialogue, reflection on practice and collaboration, resulting in a change of the pedagogic modus operandi and altering their beliefs of what constitutes an inclusive pedagogy.
REFERENCES


