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ARTICLE

Participatory teacher development at schools

Processes and issues

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ABSTRACT

This article describes an action research study on reflective development at school and discusses methodological and pedagogical issues arising from teacher beliefs and expectations. Teachers and researchers participated in four cooperative cycles of inquiry, where situated learning and reflection supported their conceptual change and meaning-making. Teachers underwent a gradual shift from imposed, predefined teaching and learning to reflective collaboration and response to different needs of different students, while researchers gained a contextualized understanding of teachers' attitudes and beliefs about teaching and learning and examined their own and the teachers' roles as action researchers. Issues related to school ethos, teachers' defensive attitudes and trust-building among teachers are discussed in light of the reflective paradigm of participants' development.

KEY WORDS

- action research
- education
- change of teachers' implicit knowledge and beliefs
- reflective paradigm of teacher development
- teachers' previous schooling experiences and cultural values

Introduction

Educational change is multidimensional. One crucial dimension is curriculum change and reform, which cannot be achieved without concomitant changes in teachers' and researchers' thought and practices. Action research in the educational context is considered a rewarding process that addresses the ability of teachers to carefully examine their own feelings and thoughts that underlie their actions. It also aims to empower all participants by developing their awareness of all obstructive elements within a particular context as well as the personal constraints that prevent real change.

From this point of view action research advocates the reflective paradigm of teacher development (e.g. Carr, 2004; Elliott, 1993), which is challenged by the constructivist principle that teaching and learning must be structured in a personal and meaningful way and must also be constantly developed and adjusted. The process of development must elicit the teachers' implicit knowledge and beliefs and give them the opportunity to revise and re-conceptualize their understanding of curriculum, teaching and learning, as well as the role of teachers, students and schooling. Teaching as living experience is subject to retrospection that provides insights for new action and reflection, a process that helps the cognizing person actively build up new knowledge. Reflective thinking on context-bound actions leads to meaningful change in mental structures and in the understanding of self and others. In a Vygotskian frame of reference knowledge construction and growth are seen as the result of personal interactions in social contexts (Vygotsky, 1978).

There is considerable research devoted to the effect of reflective processes on teachers' learning, many studies based on the assumption that a given teaching is associated with the teacher's previous schooling experiences and cultural values (e.g. belief in authoritarian power, abstract knowledge, and religious norms – socialization tactics; Day, Calderhead, & Denicolo, 1993). To help teachers recognize their implicit knowledge and overcome their misconceptions and/or conventional understanding of teaching and learning, they must be given the means to perceive and to elucidate their cultural models and implicit knowledge.

On the basis of the above discussion, the following questions arise. What reflective processes will promote teacher self-evaluation, understanding and development? How do teachers implicitly understand school-based curriculum development and how do they conceptualize their role as curriculum developers? How can teachers understand and value the processes of reflective development?

To respond to these questions, a qualitative study was designed to promote conceptual change among Cypriot teachers, through emphasis on context-bound learning for school-based curriculum development and action research.

Theoretical framework

The epistemological foundation of this study is grounded in the following streams of thought: Habermas's work (1972) on emancipation interest as it opposes instrumental positivistic knowledge; phenomenographic work on contextualized conceptual change (Marton, Hounsell, & Entwistle, 1984); and critical pedagogy, especially its emphasis on the improvement of social conditions through action research (e.g. Freire, 1972; Grundy, 1986).

We consider teachers' collaborative contribution, conceptual change and active involvement crucial for curriculum reform and educational change. The shift from positivistic, algorithmic approaches to curriculum development by 'experts' to a heuristic, cyclic, collaborative endeavour of all participants indicates the shift from modernism to postmodernism and meta-modernity (Doll, 1993; Hargreaves, 1994; Koutselini, 1997), movements that aim to personalize schooling and learning processes by empowering teachers to participate in these processes.

Research on curriculum suggests that contextual variables in the school and its environment are so important that general recommendations sacrifice individual reality for the sake of prescribed routines (e.g. Doll, 1993; Eisner, 1994; Pinar & Reynolds, 1992). Teachers' self-reflection and action during learning and teaching in meaningful environments contextualize learning and promote authentic, context-bound knowledge since educational change depends on what teachers do and think. A considerable body of research literature (e.g. Bennett & Carre, 1993; Connelly & Clandinin, 1987; Kagan, 1992) on teachers' conceptual change emphasizes Ausubel's (1968) view that the most important factor influencing learning is what one already knows. Teachers enter education programs and schools with explicit and implicit conceptions about their role as teachers and they can be very persistent in holding certain beliefs.

Educational action research is generally considered to be a process of teaching and learning that facilitates teachers' involvement in authentic, context-bound problems and supports the generation of new knowledge, which can emancipate them from imposed curriculum delivery. As action research is increasingly used in school-based curriculum development, it promotes Freire's understanding of 'the act of knowing' (1972, p. 31) as involving 'a dialectical movement which goes from action to reflection and from reflection upon action to a new action'. Within this process improvement is not imposed upon participants but, rather, is generated by their active, collaborative participation. This in turn leads to understanding, conceptual change and meaning-making.

Key to the concept of meaning-making is 'reflection'. As Habermas (1972, p. 208) stated, 'Self-reflection is at once intuition and emancipation, comprehension and liberation from dogmatic dependence'. Using a philosophical metaphor, Gadamer (1977, p. 38) stressed that, 'Reflection on a given pre-understanding

brings before me something that otherwise happens behind my back'. Thus, reflection appears as a necessary tool for conceptual change. Liberation from the technical implementation of curriculum allows teachers to test curriculum specifications in their own context (classrooms) and attempt curriculum development at the micro-level. What do we mean by liberation? Teachers' thought is usually enslaved to technical teaching paradigms taught and implemented in their 'training' according to which professional knowledge comprises of a set of value-free technical competences and skills. From this perspective, teacher training in the application of a given curriculum is considered to be 'teacher development'. More significantly, in the training process teachers are precluded from any inquiry that could lead to unforeseen results, inquiries that would liberate teachers from pre-defined routines and promote their pedagogical autonomy.

The purpose and objectives of the participatory endeavour

During the 2005 annual in-service teacher training requested by the Ministry of Education and organized by the Department of Education of the University of Cyprus, a group of pre-primary teachers asked for help and support to improve their everyday communication with students. They spoke of 'problematic' students and a 'given' curriculum that forced them to teach a syllabus regardless of whether the students learnt anything and despite some students' antagonism or difficulty with learning.

Researchers and teachers shared a willingness to use action research as a means to improve communication between teachers and students, so that by sharing knowledge and ideas teachers' ability to anticipate 'problems' in their schools would be enhanced. This was the aim of the study, which arose from both teachers' concerns about students with problematic language performance and my interest in learning what prevents teacher collaboration at schools and what happens between teachers and 'problematic' students.

Teachers had only a very general and abstract idea about action research, but they were excited to play the role of 'teachers as researchers'. The general purpose, that is, anticipation of problems at schools through action research and communication, was analysed by the participants and formulated into the following concrete objectives:

- For both researchers and teachers to understand what impedes communication with students, and especially those with 'problematic' language performance.
- For both researchers and teachers to investigate the processes by which teachers develop into reflective researchers and practitioners.
- For both researchers and teachers to investigate and value the processes of reflective development, that is, self-reflection and collaborative sense-making.

- For both researchers and teachers to develop their reflective and interpretive skills, which will lead to self-evaluation and deeper understanding of a contextualized teaching-learning process and curriculum development at micro-level.
- For teachers to improve their communication with their students.
- For teachers to be able to differentiate curriculum at the micro-level in order to provide appropriate learning activities for all learners.
- For teachers to understand how their own implicit knowledge prevents them from responding to students' needs.

The author (principal researcher) and the two postgraduate students who participated in this study did so with a sincere interest and willingness to share experiences and reflections in order to accomplish the goal and the objectives of the study. Researchers' epistemological background and beliefs about teacher and researcher development instigated research *with* teachers and not research *on* teachers, a principle that advocates reflection on contextualized actions and reconceptualization of meaning and understanding.

From this perspective researchers proposed some additional objectives that could target some tentative answers to issues concerning obstacles to teachers' self-evaluation, understanding and development, their understanding of school-based curriculum development and the conceptualization of their role as curriculum developers. Given that the action research design was chosen for the purposes of the intervention, researchers were interested in examining what issues are implicated in teachers' authentic reflection and long-lasting empowerment.

The research objectives would focus on gaining a deeper understanding of teachers' thinking, practices, and difficulties in the school context. Moreover, researchers-university educators would investigate pre-primary teachers' thoughts and reactions when 'teachers act as researchers', which would provide theoretical insights about action research and its implementation.

It must be stressed that the author, as well as the two postgraduate students, participated in all cycles of the action research, learning from teachers' reactions, thoughts and hesitations. Although they facilitated the processes of action research, their reactions were always reflective and aimed at experience-sharing and reciprocal learning. Researchers helped teachers to acquire a voice, to speak out and express their feelings and hesitations. Moreover, they proposed alternative ways of thinking as well as readings on specific issues such as language performance, curriculum development at the micro-level, differentiated teaching and learning in mixed-ability classrooms. During the plenary sessions they focused on issues that prevented teachers from 'seeing' the classroom, the students and certain issues that forced them to concentrate only on the curriculum content. It is important to state that these issues derived from the intervention process; researchers tried not to impose ready-made knowledge, but to share their understanding and theoretical insights gained from their communication with teachers.

Methodology

To design an action research project is not easy, since reflection must be genuine and the interplay between action and reflection must be seen as an unfinished endeavour supporting the pedagogical autonomy of teachers. How can we ensure genuine reflection? How can we ensure long-term results for teacher empowerment, considering that in the educational context it is almost impossible to have the same teachers and researchers in the same school for more than one or two years?

Population and sample

Sixteen teachers from three public pre-primary schools in Cyprus, one inspector and two principals participated voluntarily in this study, proposed to them as a project aimed at enhancing the teachers' ability to anticipate 'problems' in their schools by using action research. All teachers were female, since no male teachers are currently employed in any public pre-primary school in Cyprus.

Design

Among the various popular theories of conceptual change (Posner, Strike, Hewson, & Gertrog, 1982), the phenomenographic paradigm was selected as the most appropriate for learning in real environments. The phenomenographic theory of conceptual change implies a change in an individual's relationship with the world (Marton, 1981) and not merely a change in concepts. Conceptual development presupposes the ability to distinguish between conceptualizations and the ability to judge the appropriateness of conceptions in a particular context. Phenomenography challenged a shift in conceptual change theory's emphasis on pure mental models, focusing instead on a functional understanding of being in the world and the elucidation of pre-established knowledge and misconceptions.

In this respect, context (i.e. school environment) is seen as an integral aspect of teachers' cognitive and emotional development, especially if teachers have the opportunity to reflect on pre-understanding and contextualized actions.

Conceptual change as the process of introducing a new structure into acquired knowledge and/or experiences is best promoted by sharing knowledge, actions, experiences with others and/or by self-reflection through diary-keeping. Thus, the action research design was chosen to facilitate a cyclical, non-linear process in which participants share responsibility and experienced-based knowledge in the pursuit of practical solutions and self-understanding (Reason & Bradbury, 2001). Collaborative participation and conceptual change are thus central to the overall research design.

Teachers' implicit beliefs about curriculum and instruction originate primarily in the rationalist-academic paradigm of teachers' education according to which teachers who know the theory can develop the skill of applying theory into practice. Subsequent to learning the theory and during their in-service training, teachers participate in competency-based training programs, which promote the idea that the skills and competences they have acquired can be applied repeatedly and effectively via routine techniques and methods in all classrooms independently of the real and differentiated needs of individual students. From this point of view teachers and students appear depersonalized within a predictable system and classroom where teaching is perceived as a set of measurable skills and routine techniques. In contrast, the reflective paradigm demands a dialectic relationship between teachers and students as well as between teachers and their actions, a relationship that holds all the mysteries of unique persons and actions. In order to change teachers' rationalist and technocratic way of thinking we must give teachers the opportunity to experience teaching as praxis, that is, as a unique experience that will be influenced by and reflective of their judgements, moral assumptions, ad hoc decisions and justifications. In this context the action becomes an object of observation and reflection and not just a means for curriculum delivery. This way of thinking presupposes a shift in teachers' understanding of teaching and a new attitude towards teaching and teachers' role. Action research is considered the most appropriate context for teachers' attitudinal change, since it enables teachers to act and judge their actions during actual teaching and not only in retrospect.

Teaching as praxis promotes the dialectical relationship between teacher and student, the environment and self, according to which meaning does not lie in the experience but in understanding the experience, as well as in the attitudes of the participants towards the experience (the Husserlian phenomenological view). From this point of view, teachers and students 'live' the experience of teaching and learning as a unique and ongoing process within which they understand the self and others and gradually become able to communicate, to share and care. This experience is a whole-person activity which goes beyond the technocratic-instrumental curriculum delivery, and promotes the dialogue with self and others not just as an intellectual-cognitive pursuit but as 'being in the world'.

Procedures

The project was envisioned as a collaborative endeavour among pre-primary school teachers, principals, supervisors and university educators. Collaboration was based on interaction and commonly produced knowledge. Weekly meetings encouraged reflection on action. All participants were encouraged to keep a diary of events and thoughts, recording their daily interaction with students as well as their feelings about group meetings. Discourse and practice constitute the main

tools of action research, as these are hypothesized to lead to a continual construction and reconstruction of meaning (Grundy, 1986).

The research design ensured that teachers, principals and the inspector were exposed to various contexts of reflection: their schools, where they identified anticipated problems; the classroom, where they could try out new ideas and reflect on their actions; the formal meetings with all participants where they shared ideas and experiences; the informal meetings among different groups (e.g. teachers with principals, teachers with teachers, teachers with the researcher). Teachers documented their experiences in diaries, and during the meetings they engaged in discussion of their actions and the meanings implicit in these actions. Audiovisual recordings were also used as sources of observable data and for triangulation procedures (Elliott, 1983).

This study combines both first- and second-person action research. First-person action research is described as the process that ‘addresses the ability of the researcher to foster an inquiring approach to his or her own life, to act awarely and choicefully, and to assess effects in the outside world while acting’ (Reason & Torbet, 2001, p. 17). When teachers act and reflect on their actions through introspection and journal writing they investigate not only their actions but also their feelings and attitudes, and interpret their lives at school and in classrooms. Based on this kind of self-observation teachers’ dispositions become the subject of their inquiry, an inquiry that reveals implicit understandings that underlie their actions. The following extract from a teacher’s diary supports the above view and indicates that theory must be generated through action and reflection:

Teacher: I don’t believe that I was led to a false judgement because of their modest behaviour and appearance . . . don’t know . . . I do not discriminate among children . . . I am very sensitive to the ‘Pygmalion’ theory.

Interestingly, the process of preparing the plenary sessions and the group work became a first-person action research for the researchers as well, since they also reflected on their experiences with teachers, they investigated the values and feelings underlying their participation, and developed their ability to share goals and to adapt to group dynamics in the process of action research. It is also important to note that I found that the process of writing this article was a necessary completion to that experience, and that the effort to articulate my understanding of, and my position in, the study led to a better understanding of the theory and procedure of action research as well as of myself as researcher.

During group work, this study was a second-person action research for the researchers as well as for the teachers in the groups. During collaboration in groups they had the opportunity ‘to inquire face-to-face with others into issues of mutual concern and engage with others productively’ (Bradbury & Reason, 2003, p. 159). Inquiry into issues of ‘who is teaching for’, ‘how we anticipate different problems for different students’, what is ‘good’ and ‘bad’ in authentic

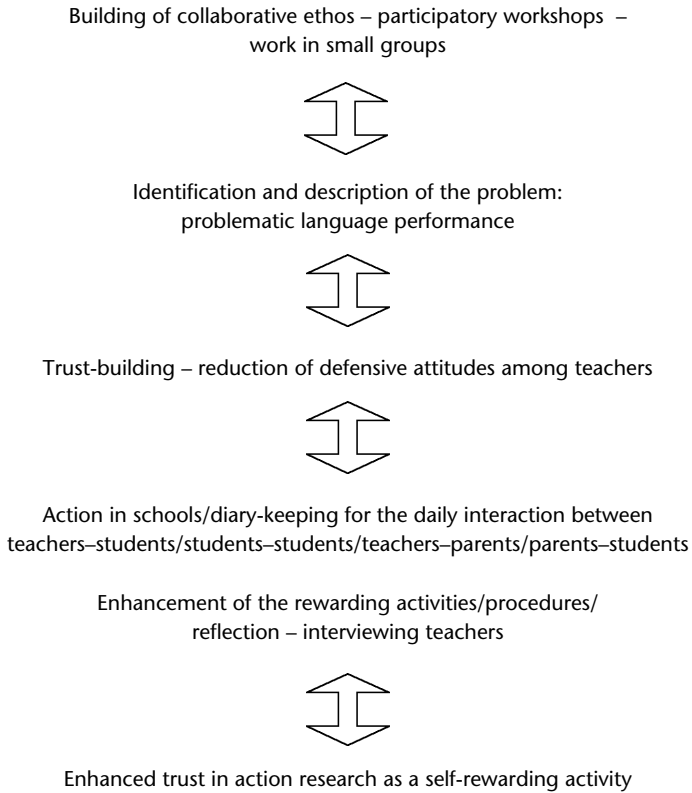


Figure 1 Incidents of the project-cycles of learning and attitude building

communication, ‘how infrastructure affects my job’, ‘what is wrong in my/our attitude and practice’, ‘what influences language performance’ are only examples of shared concerns.

There were no extra assignments for the meetings, which were organized according to the research design: discussion of problems, ideas, actions, reflection, and new action. The incidents in the cyclic structure of the research design are delineated in Figure 1.

Reflection on the cycles of learning and issues of discussion

First cycle (three meetings)

The first cycle involved teachers’ identification and initial description of the ‘problem’ that would be the focus of the meetings. But from the outset crucial methodological issues arose: how could we structure the workshops so that they

were truly participatory and led to genuine reflections? Teachers were inclined to wait for instructions and to hide their lack of knowledge or weaknesses from their supervisors and 'other' teachers. Small group discussions seemed to encourage greater participation, which led to all participants acknowledging a common 'school problem': students' acquisition of language skills.

The first obstacle in the process of action research was evident in the first 'formal meeting' of all participants: teachers exhibited strongly antagonistic attitudes toward their colleagues from other schools. Difficulties in communication emerged from teachers' preference to remain silent rather than to say something that might not be correct and which might compromise their expertise and reputation. There appeared to be a kind of power struggle in terms of knowledge and ignorance. Silence seemed to be the safe choice, where no one took the risk of being judged. It was therefore difficult to elicit a cooperative ethos in the plenary session meetings. The educational system in Cyprus has an especially 'unfriendly' promotion system, as well as a top-down evaluation system of teachers by the supervisors and head-teachers, two factors that can at least partially explain teachers' attitudes in the plenary sessions. Nevertheless, further investigation of this phenomenon is necessary, if effective collaboration among teachers from different schools is to be achieved.

To confront this lack of collaborative participation we decided to adopt a format of the small, friendly group discussions (three to five persons). Teachers from different schools met with researchers, who facilitated discussion by giving all participants a chance to talk and encouraging teachers to elaborate on all ideas. The small group discussions gradually built trust, in a non-antagonistic learning environment, where all participants realized that their ideas were appreciated and valued because they contributed to the creation of new knowledge. Thus, the concern for participants' feelings and the development of a trustful learning environment were important factors in the teachers' empowerment process.

Teacher discussions on language performance in the nursery school revealed a variety of different approaches to the problem: language performance related to vocabulary, syntax, narration, logical reasoning, descriptive ability, social conversation, communicative skills, etc. As teachers tried to specify 'common' characteristics of the problem, they realized that language problems should be differentiated from school to school: schools with children from socio-economically deprived areas within which the school was located faced problems related to the discrepancy between the school and the family codes and vocabulary; schools with large immigrant populations had many students who needed to learn Greek as a second language; and schools with mixed-ability classrooms had to be able to expose children to variety of communicative contexts where they could practise reasoning and other skills. Thus, all teachers agreed that the specific societal context of the school differently affected the language perform-

ance, a debate that generated new theoretical insights for all the participants.

With this realization, the teachers turned to differentiation of the project content while using the same general title, 'Upgrading students' language performance'. Discussion and reflection during these first-cycle meetings led teachers towards meaning construction in relation to specification of context-bound problems. As one teacher said, explaining her idea on project differentiation: 'Language performance seems to be strongly associated with the social, emotional and learning history of each child.' Viewing children as biographies, persons with multifaceted histories – and not as static beings with learning difficulties that can be overcome by transmission or imposition of programs or knowledge – was considered the starting point of teachers' conceptual change towards teaching and learning. Teachers began to question their previous understanding of teaching, learning and 'content delivery' as well as the significance they had earlier imputed to socioeconomic factors. They discussed undifferentiated content and instructional material that do not take into account students' differences, they 'discovered' how the concept 'students' learning history' and factors outside the schools (i.e. family) could affect students' readiness to profit from an official curriculum. On the basis of this discussion, they rethought their delivery methods and their traditional role as evaluators rather than as teachers.

Nevertheless, we must clarify that this process of conceptual change was not linear, nor did it happen all of a sudden. Teachers' group reflection and self-reflection in their diaries were full of hesitations and lack of confidence in their ability to take effective action. The following extracts focus on these hesitations. I find the teacher's question very interesting, since it explains how unsafe teachers feel when they have to make decisions and act alone, without the support of their colleagues: a situation that seems to change when teachers begin to work more cooperatively.

Principal: I always knew that we did not provide equal opportunities to different students by delivering the same pages of the textbooks and by offering the same activities for all students. But how can we implement differentiated instruction in a class of 25? What about the content and the official curriculum? How can we involve parents, if parents are not interested or if they are illiterate?

Teacher: I want to change my delivery method and activities. But who can guarantee that I will do the right thing?

Second cycle (four meetings)

The second cycle began with a focus on functional analysis of the contextualized problem. Questions such as 'How do we know that this is a problem?', 'How can we describe it?', 'How does it conform to each child?' were addressed by the participants during the small group sessions as well as during the plenary meetings.

Participants continued to experience difficulty with sincere reflections and decision-making; researchers realized that teachers, and surprisingly to a greater degree the supervisor and the head-teachers, expected ready-made answers to the language problem. The discussions among researchers, head-teachers and the supervisor as well as between researchers and teachers revealed that teachers believe very strongly in the authoritarian knowledge and ‘wisdom’ of researchers, academicians, and in general of all those in higher academic/professional positions. We found that teachers accepted the ideas of those who ‘should know better’, and preferred to implement these individuals’ ideas rather than devising their own solutions. This was a significant methodological problem in our action research and we realized that the researchers’ control – a problem that originated in teachers’ expectations and beliefs – had to be reduced.

How can we address this problem? Underlying the implementation of action research in education is the notion that teachers must become researchers in schools without the participation of external researchers. Thus, we needed to identify the obstacles that prevent teachers from participatory research. Individual and group interviews with teachers during this phase of the action research revealed some reasons why teachers’ adhere to ready-made, imposed knowledge: their ‘lack of specialization’; the lack of information about research data in the field of language performance; a school environment that does not support research activities; parents’ control over curriculum content and delivery pace; and lack of self-confidence regarding the correctness and the efficiency of their initiatives.

Understanding the teachers’ feelings enabled us to propose a number of hypotheses to explain their attitudes: long history of a positivistic paradigm of curriculum design; delivery and evaluation based mainly on testing, which impedes creativity, autonomy, and self-confidence; pre-packaged curricular materials; supervisors who demand imitation of model lesson plans; and the fear of authority. This situation created a conditioned school environment, where everything is controlled by the power holders, the supervisor, the parents, the evaluators, who measure students’ and teachers’ success or failure, without any concern for teachers’ – and students’ – emotions, beliefs, and original thinking. A considerable body of literature has been devoted to uniformity, teacher control, and neglect of teachers’ personhood (e.g. Apple; Ball; Day; Eisner; Elliott; Goodson; Pinar; Van Manen; Wexler; Young), especially in educational systems advocating external testing on specified standards. Here, however, we had the unique opportunity to re-conceptualize this understanding within the action research paradigm. Because the teachers accepted and valued imposed, ready-made authoritarian knowledge, they needed support, some tangible evidence that their actions were appreciated, as well as partners who would share the responsibility. When left to work on their own they felt lost and ignorant; when they collaborated in groups where situation analysis, reflection and action planning were the focus, they gained self-confidence and were willing to try.

Therefore, our role as researchers was twofold: first, to understand teachers' fears and beliefs when they act as action researchers, and, second, to provide scaffolding for the procedures related to action research by realizing and addressing the methodological problems arising from this endeavour. This process of trying to understand the methodological and epistemological issue related to teachers' as action researchers was very challenging and rewarding.

During this cycle, discussions focused on the content and procedures for participative decisions. Here, teachers decided to gather observable data from each classroom using audiovisual recordings. Also during this cycle the teachers' implicit knowledge related to the correlation between performance and appearance or/and socioeconomic family background was externalized. Teachers' functional analysis of each child's language performance was shaped by their belief that children from low socioeconomic backgrounds or children who were poorly dressed would be low achievers, in contrast to children from high-income families who were prejudged to be high achievers. Before their participation in this study teachers' discriminating attitudes resulted in different expectations for each child according to his/her socioeconomic background. Thus, teachers unconsciously allowed a vicious circle to develop, wherein low expectations resulted in reduced attention, limited communication and less care taken with these children. When they decided to evaluate their communication with each child, as well the communication between children, they realized that in their everyday practice they paid more attention to the needs of the well-dressed students or the students of a higher socioeconomic background. After understanding that this implicit belief had been a serious obstacle to equal opportunities for all their students, and that more verbal students tended to dominate the classroom at the expense of the 'silent' students, they tried to find alternative ways of communication in the classroom.

Videotaped evidence, triangulation procedures and discourse analysis during the meetings revealed teachers' internalized beliefs and preconceptions and led to new descriptions of children's language performance. The following observations were made:

Principal: I now realize that Mario and Helen (children of the school) have no special problem, when they have the opportunity and the interest to speak . . . Videotapes have shown that their language behavior is very different when they play from their behavior in the classroom.

Teacher: I don't believe that I was led to a false judgment because of their modest behaviour and appearance . . . don't know . . . I do not discriminate among children . . . I am very sensitive to the 'Pygmalion' theory.

The second cycle of self- and group reflection proved to be an emancipatory process for teachers, and a process that helped them develop new ways of seeing and understanding the school and classroom reality.

Third cycle (four meetings)

The aim of the third cycle of learning and attitude-building was twofold: to plan further action that would result in conceptualization of the rewarded activities; and to create a safe, situated-learning environment for the teachers.

Emphasis was placed on the teachers' interpretations of both the meaning of principles and their compatibility with the specific situation in which they were to be applied. Because the process of taking action was the aim of investigation rather than the products related to that action, interpretative knowledge was the main focus of this project, which led to conceptions appropriate for implementation in the specific context. Action research does not provide solutions to contemporary problems and it can not be considered as a problem-solving process through which the participants can learn the pre-defined 'stages' of a practice uniformly applicable in all the contexts. Its uniqueness lies in the process of empowerment of different participants in different contexts (i.e. social, educational, political), a process which provides self-awareness, theoretical insights, and understandable structures within which our self could better exist and our action improve. The result of inquiry is the construction of interpretative knowledge, comprising awareness, reflection, selected action, evaluation, and revision for new action.

Active experimentation and reflection aimed at theoretical conceptualization of the generated knowledge. The resultant conceptualization highlighted principles and procedures of language acquisition in the pre-primary school that helped teachers to see language development as a social construction that requires the collaboration of teachers, students and parents.

Teachers were encouraged to explore research on language development and to share their new knowledge during the meetings at schools. Diary entries indicated that these meetings enhanced teachers' self-confidence, especially because they shared responsibility for decision-making and planned actions. Importantly, the shift in participants' understanding resulted in a similar shift in attitude towards both the project and curriculum and teaching. Certain factors that were initially viewed as obstacles to action research – such as the time schedule, the extra effort of teachers, and the lack of support for working beyond the curriculum – changed during this cycle. These attitudinal changes reflected teachers' growing feelings of responsibility and autonomy, their willingness to try out new curricular modules and to conceptualize their action in the specific context.

Participants were not expected to fully theorize action research. Rather, they were expected to become committed to its processes, as well as to question their previous practices. The change was not easy; the participants did not change simultaneously, or identically. The process of change resembled a course of psychotherapy, where hesitations and fears appeared and reappeared. These

hesitations and fears originated primarily in the traditional academic model of teacher education/development, according to which 'teachers teach and students learn' in a monolithic classroom environment. Their development into 'practising educator-researchers' (Mertler, 2005) was a binary process between trust/self-confidence and ambiguity/faith in expert support. Teachers doubted their ability to plan actions that could anticipate the language problems of their students. At the beginning of the project they were 'worried that there would be no real result from this project', as one teacher wrote, because the action research process did not allow for ready-made knowledge that could be easily implemented. During the plenary sessions they wondered how they could be sure that their decisions would be the right ones. To support teachers, researchers decided to employ a 'scaffolding process' through which they stimulated teachers' thinking by proposing alternatives and/or modelling how one could think during decision-taking, but always allowing teachers to have the final word. Teachers' uncertainty also resulted from the fact that they were not familiar with action research, and especially the 'forward-back' process of revising goals and procedures. Thus, at the beginning they felt frustrated by their 'inability' to find solutions. Gradually they realized that the solution was the process itself through which they enriched their communicative skills and their understanding of teaching as a child-caring process.

Trust-building was a process of mutual recognition and acceptance that led to self-confidence. There are some important elements of group processes and experiences that support the gradual development of trust and self-confidence. First, participants realized that through discussion they learned better and more, and that their decisions were valid and accepted by the researchers. They revised their previous perception that mistakes are sins and that they must be avoided, a preconception that initially caused them to remain silent. They were encouraged by the researchers to 'propose' ideas and then to reflect on them, having in mind that the inquiry process reveals diverse and important aspects of their work which otherwise remain hidden and devalued. After their experiences in the classroom they were motivated to generate theories about crucial epistemological issues concerning teaching: is teaching a teacher's performance or a dialectic communication? Are teaching and learning intellectual pursuits or whole-person experiences that include exposition of feelings and mutual appreciation? They were also encouraged to be responsive and flexible to others' stories (of both their colleagues and their students) and to share a vision through common goals which could facilitate sustainable communication and reflection.

Positive results from their actions enhanced their belief in their own narratives and educational practice. As one teacher put it, 'Better communication in my classroom gave me the confidence to share my ideas and practices with other teachers because I now knew that things work'.

Diary content analysis: Evidence of conceptual change during action research

The group discussion did not include analysis of the diary entries as the diary keeping was considered a medium of self-reflection as well as post-facto evidence of participants' meaning-making.

We include here several diary extracts, which illustrate the participants' gradual change and their deeper understanding of certain concepts, for example, knowledge generation and the role of students and teachers with respect to the curriculum, and understanding of action research procedures and presuppositions.

Knowledge imposition versus knowledge generation and meta-cognition

Participants' first reactions to the group collaboration and work were strongly negative. Their comments indicate that they expected the facilitator to propose solutions, to direct them in the project, and to give or approve teaching materials/curricular modules.

The following extracts from their diaries indicate their false expectations as well as their gradual understanding (conceptual change) of the learning process.

The inspector:

First meeting: We know the theory, i.e. group working, collaboration, decision-making process, etc., etc. We attempt all these methods in schools and every year we have lectures on these matters during the seminars.

I understand that now teachers will have the opportunity to implement these things.

Second meeting: I didn't realize that I was to actually participate in the project as a member of the group.

Seventh meeting: Even the facilitator of the project seems to be getting some ideas as a result of this project.

Ninth meeting: It is really an entirely different process of anticipating problems in schools. Action research is a self-improvement process, but it is very difficult to do it all the time.

Teacher 1:

Third meeting: I am worried that there will be no real result from this project.

Tenth meeting: It became more and more clear to us that we had to try to reflect, try again and again, until we meet the needs of each child.

Teacher 2:

Second meeting: I started this program very confused about what I should do. I became even more confused during the first two meetings, because we were not given clear instructions of what was right and wrong.

Teacher 3:

Eighth meeting: During the fifth meeting I began to realize what was happening; we should work with our colleagues, to find out ideas for action and then to come back to reflect on all the happenings; this was very fruitful; but we don't have the time at school for that.

Teacher 4:

Ninth meeting: It is important to work with other teachers and to share ideas and responsibility. Nevertheless, I am not sure that the school environment today supports this kind of work.

Teacher 5:

Ninth meeting: The collaborative learning context fostered my awareness of my own conceptions.

It is important to note that the participants expressed the same ideas in the meetings. Their ideas and feelings reveal how their implicit knowledge prevented their active participation and show that they regard knowledge as a ready-made product in the 'expert's' head, which must be transmitted and implemented in the same way in all cases.

Nevertheless, the most important outcome of the teachers' reflections was their appreciation of the participative process of the meetings; the shift from authoritarian beliefs to participatory sharing of knowledge was obvious in both written and oral statements. Likewise, teachers' feelings that the school environment was an obstacle to action research seemed to affect both the theoretical and practical conception of action research.

It is also important that the teachers recognized that during their collaboration in groups they made their conceptions objects of cognition, an essential presupposition for the revision of pre-existing conceptual structures and attitudinal change.

Conclusion

This action research study – although a difficult undertaking – proved a transformative experience for all involved, participants, teachers and researchers. The teachers' development as action researchers, as well as the evolution of their beliefs on curriculum, teaching and learning, was clearly evident throughout the discussions and their journal entries.

Reflection, conceptualization of action in collaborative groups, and changing the school ethos are all features of action research that will support situated learning. The gradual appreciation of participative inquiry builds self-confidence and devalues the strong belief in authoritarian knowledge. However, procedures

such as reflection and introspection are merely external characteristics of action research. Unless teachers change their thinking and beliefs about the process of learning, and unless there is a sincere effort to improve the school environment the action research will not prove effective. It is also not enough to situate the learning experience within the experience of the learner (here the teachers) but rather, a dialectic relationship between the teacher and researcher is required. In this study, the dialectic relationship facilitated the construction of meaning for both teachers and researchers, who situated action research issues and processes within the experience of teachers.

Teachers' hesitations and the discursive process of action and reflection in different settings highlighted important aspects of first- and second-person action research that refer to issues of empowerment and emancipation, that is, how we give a voice to all participants; how we deal with group dynamics and trust-building; how we motivate participants to act choicefully; what stimulates them to work with their feelings and thoughts; how we convince them to believe in their authority to act on their decisions; how we elicit their implicit preconceptions about their roles. Important issues that arose during the study concerned the genuine reflection of participants, trust-building during the face-to-face group collaboration, empowerment and emancipation of teachers to act as researchers and to liberate themselves from the imposed theoretical knowledge.

My experience is that there are not any formulas or set answers to these issues – otherwise the meaning of action research would be lost – but rather there are insights generated from unique actual experiences. Deconstruction of hierarchical structures was realized through encouragement of the weaker voices, an issue that is associated with issues of power as exercised through interpersonal relations and reduction of dominant talk. Moreover, the use of a variety of settings for reflection, that is, in plenary sessions, in small groups, at schools, and especially through journal writing that proved to be a self-supporting device, empowered participants to *reflect not only on actions but also on thoughts, feelings, and ideas*, their own and others' – a situation that encouraged reviewing and revisions, and that brought deeper understanding of self, others and the tasks at work.

Ultimately, empowerment and emancipation in education refers to the knowledge of subject matter and pedagogy. The importance of action research processes derives from the fact that this knowledge is generated through praxis, something that is missing from the non-reflective paradigm of teachers' education and development. Situated learning at schools and in groups for sharing ideas, resources of knowledge and experiences as well as support to express themselves facilitate their development and self and others' understanding.

Teachers' cultural, educational and professional history affects their expectations of the system and imposes restrictions on their ability to act as researchers. The hierarchical structure of the educational working environment –

reinforced by teachers' belief that 'somebody else knows better', a perception constructed on the authoritarian knowledge of their education and models of training – restricts their pedagogical autonomy. Thus, understanding teachers' thinking is a means of understanding cultural values and their compatibility with the future orientation of a society (Koutselini & Persianis, 2000). Teachers who view themselves as transmitters of curricular knowledge and consider their students as knowledge consumers depersonalize themselves and their students and trap society within the technocratic paradigm, which views persons as marketable products alienated from themselves and their surroundings.

Before this study, participants' preconceived ideas on curriculum development and the role of experts prevented them from developing their reflective abilities. Their conceptual changes in relation to weak students, student problems, language problems in the pre-primary school and teaching in mixed-ability classrooms were facilitated by their understanding of the procedures of action research and appreciation of the participative procedures that diminish external control and enhance collaborative participation and meaning-making. Action research proved to be an effective method for producing an emancipatory change in attitudes and practice of both researchers and teachers.

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