Case-writing as border-crossing: Describing, explaining and promoting teacher change

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Maher Hashweh
Birzeit University
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Case-writing as border-crossing: describing, explaining and promoting teacher change

Maher Z. Hashweh★
Birzeit University, Palestine

The present paper describes a project that emphasized the use of case-writing by teachers engaged in an educational innovation. The aims of the paper are threefold: to provide a somewhat detailed description of the case-writing process, to explicate the varied functions of cases and case-writing by teachers, and to discuss an important feature of cases and case-writing that might explain their power. The main argument is that cases could be used to achieve three purposes: to promote, to describe, and to explain teacher and educational change. The description of the case-writing process and an analysis of the cases themselves reveal their great potential in achieving these three aims. Additionally, it is argued that cases and case-writing facilitate border-crossing, or the integration of theory/practice, research/narration, and cognition/emotion, an integration necessary for authentic professional activities. This seminal feature of cases and case-writing also accounts for their potential in achieving the previously mentioned functions.

Introduction

Educators and educational researchers are still exploring the myriad questions related to the use of cases in education. Cases have been written and used in teacher education and in educational research for a variety of purposes, by different authors, working within different theoretical perspectives. With regard to purposes, cases have been used for facilitating teacher education and professional development, for legitimizing teaching as a profession, and for educational research purposes; that is, for the creation of knowledge, whether basic research or that more directly concerned with the improvement of practice. As to the authors, cases have been written individually or collaboratively by teachers and/or researchers. Finally, in conducting research on teacher thinking and teaching, researchers have viewed these cases as representing local practical practitioner knowledge and reasoning, or as exemplifying formal theoretical knowledge, or as a combination of the two.

   Different strands of research on teacher cognition and teaching, and different approaches to teacher education and development constituted the background for the project described in this paper. The use of teacher written cases, or teaching

★Department of Education and Psychology, Birzeit University, Birzeit, West Bank, Via Israel, Palestine. Email: mhashweh@birzeit.edu

cases, in preservice and inservice education programs, and for the promotion of professional development, has gained momentum since more than a decade ago, when Shulman (1986) called for developing a case literature for pedagogical purposes (see, for example, casebooks such as Shulman & Mesa-Bains, 1993; Johannessen & McCann, 2002). We have moved beyond explaining why cases can serve as important pedagogical tools (for example, Shulman L.S., 1992) to studying how case-writing or case reading and discussion can actually promote teacher growth (for example, Whitcomb, 1997; Lundeberg *et al.*, 1999)

On another front, researchers studying teacher thinking and teaching, and teacher practical knowledge in particular, have demonstrated the value of narrative, stories and cases in understanding and representing teacher knowledge (for a review and discussion of the various strands of research on teacher knowledge, see Fenstermacher, 1994; for a review of narrative research on schooling, see Gudmundsdottir, 2001). While some researchers have themselves written the narratives about teachers in the form of cases, case studies, or biographies, others have supported teachers writing their own stories, in an effort to give more emphasis to the teacher's voice (for epistemological and/or sociopolitical considerations). Related to this last group are researchers who advocated and facilitated teacher research (see, for example, Cochran-Smith & Lytle, 1993), which resulted in different reports, some of them in the form of cases. A newer variety of teacher research, usually restricted to faculty in higher education inquiring into their teaching, is what has been termed the scholarship of teaching (Hutchings, 2000; Hutchings & Shulman, 1999). Also closely associated with this last strand is the teacher action research strand, which usually produced reports, but seldom in the form of cases (for a cogent rationale for this strand, see Atkin, 1992).

The present paper describes a project that focused on the use of case-writing by teachers engaged in an educational innovation. The aims of the paper are threefold: to explicate the varied functions of cases and case-writing by teachers, to discuss an important feature of cases and case-writing that might explain their power, and to provide a somewhat detailed description of how the cases were written to allow replication or adaptation by interested readers. The main argument is that cases could be used to achieve three purposes: to promote, to describe, and to explain teacher and educational change. The description of the case-writing process and an analysis of the cases themselves reveal their great potential in achieving these three aims. Additionally, it is argued that cases and case-writing facilitate border-crossing, or an intertwining across the conventional boundaries between inside/outside, theory/practice, research/story, knowledge/beliefs, cognition/emotion, and narrative/paradigmatic modes of knowing. This seminal feature of cases and case-writing accounts for their potential in achieving the previously mentioned multiple functions.

The present project, informed by these different strands and traditions, emphasized teacher case-writing while engaged in an effort to induce educational change. While we realized the importance of teacher case-writing on professional development (the first purpose of case-writing, mentioned earlier), we realized that it will not, by itself, be enough. Consequently, we sought to engage teachers in teacher

research and action research to supplement case-writing. We were aware of the need for teachers to collaborate for meaningful reflection and deliberations to occur. We were also aware of the need for teachers to learn from practice and in practice (Ball & Cohen, 1999), and of the dialectical relationships between teacher change and educational change. Additionally, we were influenced by ideas from social constructivism, situated learning, and learning communities in designing the project. The influence of these ideas will become clear in the following description of the project. While we were aware of the pedagogical effects of case-writing on the participating teachers themselves, we also aimed to build cases that can be pedagogically used by other teachers. Among the different pedagogical purposes of cases that L.S. Shulman (1992) identified, we hoped that these particular cases would serve to provide visions or images of the possible for other teachers.

The documentation of the project, or describing teacher and educational development, was the second purpose for case-writing. While case studies have been extensively used for this purpose, teacher-written cases have seldom been used. In a project that emphasized teaching democracy using a case-based problem-solving approach, we found that using cases to document the project made also good sense. Finally, during the writing process itself it became clear that writing cases in a collaborative manner was much more than a simple documentation process; it was a collaborative form of inquiry into one's and others' practices. The cases, thus, become data for research and simultaneously research products; they served as means for understanding teacher development and educational change.

Description of the project

The Democracy Education Project was a three-year project that started in September 1998. Nine high school teachers form private, public, and United Nations Relief and Welfare Agency schools in the Ramallah area of the West Bank participated in a one-year workshop that met on a weekly basis during the first year of the project. During the first semester of the academic year, the teachers participated in a workshop that introduced them to the philosophy, theoretical bases, and teaching methods of a case-based approach to democracy education. They collaborated, under the leadership of a university-based researcher, in designing a case-based unit. During the second semester they taught the unit in their respective ninth-grade classrooms, and continued to meet on a weekly basis to reflect on the teaching of the preceding week, and to plan for the teaching of the forthcoming week.

The teaching unit presented a case about punishment of students in schools, and used it as an anchor for collaborative student learning about various elements of democracy, such as citizenship, the rule of law, the separation of powers, the legislative process, accountability, and basic rights. The teachers agreed upon a set of design criteria to guide the development and teaching of the case. Among these were the necessity of building the case using local events or issues, the use of a problem-based approach, the need for the case to provide a base for creating a community of learners, and the requirement that students explicitly plan their investigations before conducting any research.

In teaching the unit, students started by reading the case of a student who cheats during a final examination, and becomes violent when a teacher tries to dismiss him from the examination room. The student faces a disciplinary committee, and is dismissed from school, only to be re-admitted after the student's family visits the teacher's family, and resort to traditional tribal rules to solve the problem. Students worked as one group to identify problems and questions raised by the case. Among the questions raised by the students were questions about the absence of written and known rules that govern student behavior in the school, the process of legislation in the school, the rights and responsibilities of the students and teachers, the account-ability of the teacher and the principal, and the separation of power. The teacher classified the questions into the seven components of democracy described earlier, and the students worked in small groups to answer questions related to these different elements of democracy, such as the rule of law, or citizenship. The students used booklets provided by the teachers, and searched the local library and the Internet. They designed questionnaires and used them to collect and analyze data, and interviewed relevant persons in the local community. Using the jigsaw methods, the students were finally re-arranged in new groups to propose solutions to the original problems raised by the case. Finally, they wrote reports that described the *status quo* in their school, and that proposed developments to solve the problems associated with discipline in the school. The teaching of the case lasted for about 16 class periods. (A detailed description of this phase of the project, and its effects on the professional development of the teachers, is found in Hashweh and Njoum [2001].)

During the second year of the project the teachers collaborated in designing five more case-based teaching units. During the first semester of the third year each of six teachers taught one case-based unit in one of the grades 9 to 11, using the same approach already described. During the second semester, each of the teachers wrote a documentary case to describe and analyze some aspects of her/his experience in teaching the case-based unit. The teachers continued to meet on a weekly basis throughout the two academic years to reflect and deliberate on their work. (The teaching cases and the documentary cases are found in Hashweh [in press].) The six teachers who participated in the three-year project held Bachelors Degrees (two held Masters Degrees), had teaching experiences ranging from 5 to 14 years, and their ages ranged from 27 to 38 years. They were teachers of Arabic, English, social studies, mathematics or physics at grades ranging between 7 and 12. I shall focus, in the present paper, on the third year of the project, to describe and analyze the case-writing process, and the cases produced at the end of the project.

The case-writing process

At the beginning of the third year of the project, when teachers started teaching the different case-based units, they were instructed to keep journals to document their teaching experience. They were asked to write their notes in the journals during the same days they taught the units. The instructions started with the following:

These instructions are to help you prepare to write a case that documents, describes, and analyzes some important aspects of teaching democracy through the use of cases (we shall collaborate in writing these cases after we finish teaching the units). There are many aspects that can be focused upon, individually or in combination. Some of these aspects are (you might think of other aspects):

1. The professional development that occurred during the teaching of the unit, and due to participating in the Project. This needs careful attention to the changes that might occur in the teacher's ideas, beliefs, or practice.
2. A description of the planning and teaching of the units, with an emphasis on problems, whether expected or unexpected, faced by the teacher, and how she dealt with them.
3. An analysis of the effects of the prior knowledge and beliefs that you held as a teacher on your teaching.
4. An analysis on the effects of teaching, using the new approach, on your knowledge, beliefs and practices.
5. Students behavior, whether academic such as participation and dialogue, or that related to discipline and classroom environment in general.
6. A student's, or students', learning of the expected knowledge and skills, and the changes in their beliefs and attitudes.
7. Dealing with individual differences, or with low achievers in particular.
8. Relations with colleagues, administration and parents.
9. Constraints imposed by the educational system and culture on using the new approach, and how you interacted with these constrains.

The instructions also pointed out that there were four 'commonplaces' (Schwab, 1978) that they might consider: the teacher, the content, the students, and the context. Many questions were posed related to each commonplace in order to help the teacher in describing and analyzing it. For example, questions under the students commonplace inquired about participation, quality of student work on homework, discipline, achievement, student attitudes, motivation, academic and social skills, and changes noticed in any of these subcomponents. The set of instructions tried to introduce the teachers to the whole complex range of possibilities from which they could choose.

During this period the teachers met on a weekly basis, as previously explained, to report on their teaching, to discus problem they faced, and to plan for teaching for the consecutive weeks. The meeting proved to be very important in providing the mutual support needed by the teachers to embark on this new innovation. They were frequently reminded about the need to document their experience, and some discussion of possible points of focus for the different cases started during this period, even before the teachers had finished teaching the units. This initial focusing and discussion helped some teachers pay more attention during teaching to some particular interesting aspects of practice. One teacher, for example, was interested in students' ideas, or preconceptions about democracy. She used the weekly meeting to discuss this interest with others, and used the interactive teaching to explore these students' ideas more extensively. The resulting case she wrote focused on students preconceptions. Others, however, were not able to pinpoint their points of focus for the cases until much later.

During the second semester, the weekly meetings were used exclusively to write, to discuss, and to develop the teacher cases. The teachers were given written instructions to guide them in their case-writing. In addition to reminding them of the nine aspects about which they could write, the instructions discussed what we mean by a case, and what its components are. The works of L.S. Shulman (1992), J.H. Shulman (1992) and Eisner (1985) were very helpful in formulating these instructions. The instructions started by discussing the aims of writing the cases: in this instance, documenting our experiences in teaching democracy using a case-based approach, and communicating this experience to other teachers. Regarding the idea of a case, the instructions mentioned that cases are 'cases of a phenomenon or some theoretical entity, such as using small group cooperative work for the first time, or problems related to teaching and learning an abstract concept such as separation of powers, or the contradictions between some prior student ideas about democracy and the newly-introduced concepts about democracy'.

The instructions explained that narratives have plots, and dramatic tension. They were encouraged to use a literary style if they thought that it would better represent the reality they were facing. The tension is usually associated with a problem that may or may not be resolved by the end of the story. Teachers were encouraged to describe their different attempts of resolving these problems, including the unsuccessful attempts. Teachers were also encouraged to describe their thoughts and feelings during the description of events, and to include reflective sections that describe what they have learned from the experience, and how they would behave if faced with the problem(s) again. They could also end the case by posing unresolved questions. Finally, the instructions explained how cases would include four components: description, interpretation, evaluation and reflection.

Teachers were apprehensive about writing the cases, and received help in the form of detailed instructions, in studying some exemplars, and in writing successive drafts and receiving feedback within a certain time schedule. The teachers read and discussed four sample cases, over a period of three weeks. Two of the cases were published in case-books (Shulman & Mesa-Bains, 1993), while the other two were written by a student-teacher and an experienced teacher in a local teacher education program. We used the set of instructions to analyze and evaluate these sample cases. In the fourth week, the teachers wrote the first draft of their cases during the session, using the technique described by J.H. Shulman (1992). The technique required the teachers to write for a short period, to read what they have written and to write for another short period. Teachers then worked in pairs to help each other develop these first drafts. At the end of the session some teachers read what they have written to the whole group, and received feedback. This first attempt helped teachers reduce the tension about writing the cases, and, for many of them, the drafts written in this session constituted the bases for their cases.

The rest of the four-month period was used to write and develop the cases. The teachers interacted with each other and with me, as the leader of these workshops. We tried to create a community of learners among us as educators, just as we tried to create similar communities of learners of democracy in our classrooms (Indeed, this has been a conscious design feature of the project as a whole. I tried to create

a community of learners among the teachers in the project for two reasons. This is, I believe, an ideal setting for learning whether for students or for teachers. It also provides a model of learning and teaching for the teachers that they can use in their own classrooms.) Each teacher was engaged in inquiry and research, experimentation, dialog, and writing. Each had to reflect on her practice and deliberate with others on possible courses of action, and to collaborate to provide mutual support. Teachers shared a passion for their work, and the processes of inquiry, reflection and collaboration were supported and legitimated by our small community that valued these processes. That is, the features that characterize learning communities (Shulman, 1997) seemed to characterize our small community.

   One teacher's comments during these sessions and the case she wrote can be used to support this description of the process. This particular teacher was among the most motivated to join the project. However, when we reached the case-writing phase, she became one of the most anxious and hesitant teachers. In one session she said that writing and openly discussing her practice and thoughts made her feel like stripping in front of others. Nevertheless, she was very keen on participating in the discussions, and saw great value in them. In the case that she wrote, she described one incident where the interactions with other teachers led her to reflect on her beliefs, and to reconsider these beliefs. This particular teacher was using a teaching case that told the story of a girl who could not study well for her important school-leaving examination because the neighbors were celebrating their son's wedding in the street for four consecutive nights. The noise from the festivity did not allow her to study or to sleep well, and her father's efforts to change the situation failed. The teacher, who lived in a city, empathized with the girl in the story, and viewed it as a clear case of denying the girl her basic civil rights afforded in a democracy. However, when she wrote about this, and her case was discussed in the workshop, another male teacher who came from a small village argued that the neighbors were right. The teacher included this incident in her case:

> While I was reflecting on my experience in teaching democracy and ethical reasoning, I remembered an incident that occurred while I was preparing for this case. A heated argument between the teachers occurred one day, and I defended Reem's [the girl's] position, thinking it was a clear case of transgression against the girl's rights and liberties. Another teacher took a counter position, and we argued heatedly. I was interested, during the debate, to defend my position. I listened to him when he spoke, but I was occupied with trying to come up with counter arguments. I was trying hard to convince him I was right.

> During the subsequent night I thought that it was not reasonable that that teacher was arguing just for the sake of arguing. He came from a large extended family, from a village background, while I came from a small nuclear family and lived most of my life in a city with very little relatives. I relived the debate again and again, thinking, "What did he really want to tell me?" I finally realized he was talking about customs and rites. From his perspective, it was acceptable to celebrate in the middle of the street, and consequently close it to traffic and disturb others because customs and rituals allow it. In the village everybody should share in occasions that celebrate joys or commemorate sadness of others, even if this at the expense of one or more individuals. I became aware of the importance of customs in our society. I have not really completely changed my opinion or adopted his viewpoint, But I became aware of the necessity of taking costumes and rituals into consideration.

This excerpt describes the case-writing process, and also reveals how the same process promoted the professional development of the writer, an issue to which we shall now turn.

The cases

Describing, explaining and promoting teacher and educational change

Cases, as found in this project and as I try to show in this section, have three important functions; they serve to promote, describe, and explain teacher and educational change.

Promoting teacher change. The earlier example starts to show how case-writing, and in particular the case-writing process used in this study that emphasized collaboration, reflection and dialog during the process, helped promote professional development for the teacher-writer, in spite of the fact that the example is not very strong since it only portrays the teacher's willingness to reconsider her prior belief and to take other beliefs into consideration. All six cases that were written attest to this important function of case-writing. The cases document changes in teachers' knowledge, beliefs and practices. While it is not intended to exhaustively identify and analyze these changes as identified in the cases themselves, it is appropriate to discuss two changes that more strongly exemplify this function of case-writing, compared with the previous example. On of the most important and radical changes in teachers' thoughts, portrayed in five of the six cases, was in their beliefs about students' abilities and the nature of intelligence. Teachers originally believed that students' characteristics, including ability, intelligence and motivation, were stable across time and context. An 'intelligent' student would stay intelligent in the future, and would be intelligent in different areas, from mathematics to languages to arts. One particular teacher wrote about the hesitation and skepticism he had about the case-based and problem-based instruction used in the project, and the use of collaborative small group work. He believed that this approach was probably appropriate for more motivated and serious students, or for graduate students but not for his unmotivated low-ability students. Later, he described how he distributed the students into small homogeneous groups according to ability, in contradiction with the philosophy adopted by the project as a whole, hoping to show the futility of the new approach:

> I wanted to prove that those students who were industrious and study under traditional teaching methods would maintain their standards under the new teaching methods, and that those who were careless and unmotivated under traditional teaching methods would stay the same, no matter what new methods we use.

The case described how three students, who were 'very modest—academically, and who did not participate in classroom activities, became, each in his own group, the focus of attention, very engaged, and the most interactive students in their groups'. He went one day to watch these students in a basketball game, and discovered they were the stars of the school team. He wrote, 'This led me to reevaluate my theories

and teaching methods. If these energies are found here, on the basketball court, what prevents their presence in my classroom? God forgive me for the time I have wasted in front of motionless, soundless, lifeless desks'. At the end of the case he wrote:

> There are a few things I have to take into consideration in the future. One of them is avoiding prior judgment [prediction of achievement] about any student. Each student is a special, independent and developing case. A student can be a good achiever in one area and a poor one in another, or vice versa.

Clearly, case-writing was not solely responsible for the professional development of the teachers; four other factors can be identified that facilitated this development. However, it is evident from the cases that the actual writing process demanded that the teacher parse her experience and reflect on it, thus facilitating development. The first factor that facilitated development was the actual teaching and learning in practice, while the second was the weekly meetings that nurtured reflection, deliberations and debate. The case described shows the roles that actual teaching and reflection on teaching during the case-writing process contributed to teacher development. The case described in the previous section on the case-writing process underscored the importance of a third factor in promoting teacher learning; namely, interacting with colleagues during the case-writing process. A fourth factor could be identified, interacting with the university-based researcher, who introduced theoretical knowledge and pressed for clarification of ideas and justification as part of his feedback during the case-writing sessions. The final factor helped teachers relate their practical knowledge to formal knowledge, as can be exemplified in one other case.

The teacher started her case by writing:

> I am a teacher of English in a private school in Ramallah. I was aware that student prior knowledge often helped students learn the foreign language, but in some cases formed a barrier to learning English. Students tend to use the language structure in their mother tongue when using the foreign language. However, I did not think I would face the same problem when teaching democracy. It became apparent that the problem I was facing was more difficult than the one I faced when teaching English. While I was aware that what I taught when teaching English was correct, and while I found a clear line demarcating black from white, I found myself in a gray area when teaching democracy. How do I discuss moral issues on philosophical grounds when the students' only basis was religious? How do I accommodate some elements of democracy when they contradict with some traditions and customs in our society that neither I, nor my students, find totally unacceptable? The problem was no longer exchanging one linguistic structure for another, but finding co-existence and resolving contradictions between the old and the new, not necessarily in favor of the new. I had to live this cognitive conflict as much as my students had to live it themselves.

This opening paragraph was the result of extensive discussion during the workshop of the teacher's experience, of the differences between the new experience and the familiar old one of teaching English, and of cognitive conflict and conceptual change. The teacher used the new formal knowledge to reconstruct her experience

and write about it. This process of connecting formal and practical knowledge will be treated in more details later.

Describing teacher change. In addition to promoting professional development, the cases served a second function: that of describing, or documenting, the professional and educational change that occurred. The teacher cases told stories of personal struggle or internal conflict and development, as exemplified by the earlier excerpts used from two cases. In addition, these stories were also stories of educational change; stories of external conflict with students, administrators and parents, of student learning and students failing to learn, and of the constraints imposed by the different elements of *status quo* on innovators trying to change this reality, stories of failures and success in face of considerable obstacles to change. (This is described in greater detail elsewhere [Hashweh, 2002].)

It is significant that some important common themes could be detected in the cases written by the teachers despite the freedom they had in choosing the aspects of the experience on which they wanted to focus, and despite the fact that many were teaching at different grade levels and in different schools. These common themes serve to triangulate the findings, and suggest that multiple cases written by different teachers engaged in an innovation can serve as a fruitful methodology for documentation and research. Many of the cases, for example, described the problems in group work that appeared due to students' prior beliefs about the abilities of other student, the changes that occurred in students' ideas about the roles of the teacher and about teaching, or in their ideas about democracy. All cases revealed the important role of conflict in inducing learning and change. Most of the cases revealed teachers ideas and beliefs about their roles, discipline, and democracy, and how these ideas and beliefs changed during the project.

I have described in the previous section how all six teacher-written cases documented changes in teachers' beliefs about students' abilities and the nature of intelligence. The case, which was used as an illustration, about a teacher's change of conception of three students' abilities, while serving to show how case-writing promotes teacher change, simultaneously describes this change. Thus, cases and case-writing describe and promote teacher change at the same time.

Explaining teacher change. The cases also had a third important function—that of allowing us to better explain, or understand, teacher and educational change. While the cases describe the phenomena of teacher change, they also provide opportunities for providing models that explain the phenomena. The cases allow theory building, or posing models of teacher professional development, especially the profound 'paradigm shift' in knowledge, beliefs and practice that the teachers sometimes have to undergo in order to implement the innovations, such as the one in the present project, or to carry out many current reforms in education. I have examined the cases and the case-writing process, and was able, from that examination, to propose such an explanation elsewhere (Hashweh, 2003). I argued that the cases show that this radical change occurred some of the time, and only when certain conditions were met. Teachers who underwent radical change did so when:

1. They were internally motivated to learn; they saw a gap between their ideals and practices.
2. They became aware of their implicit knowledge, beliefs and practices, realized the limitations of these, and were supported to critically and systematically evaluate them.
3. They had the opportunities and conditions necessary to construct alternative knowledge, beliefs, and practices.
4. They had the opportunity to resolve the conflict between the prior set of ideas and practices and the new.
5. A social climate characterized by collaboration, trust, reflection and deliberation nurtured and legitimized these processes.

In conclusion, the cases written by the six teachers who participated in the project, and the case-writing process, served three functions: promoting, describing and explaining teacher and school change. An examination of the case-writing process and of the cases reveals an important feature that might explain their power: the process and the product serve, and exemplify, intertwining practical and formal knowledge, research and narration, and cognition and affect. Or, looked at slightly differently, they serve as tools, as border-crossers between these dichotomous and opposing pairs of categories. They provide a neutral no-man's zone that allows fruitful intercourse between the practical and the formal, research and story-telling, and reason and emotions.

Border-crossing

The educational literature, and indeed the world of academia in general, is filled with dualisms, analyses that emphasize sharp conceptual distinctions in the form of dichotomies with clear boundaries. Some go back for thousands of years, as for example Aristotle's distinction between theoretical (*epistēmē*) and practical (*technē*) knowledge, reintroduced into philosophical thought in the last century by Ryle (1949) in distinguishing knowing that from knowing how. Cognitive psychologists and educators have generally accepted the difference between declarative and procedural knowledge (and, sometimes, conditional knowledge). Other old philosophical distinctions are between knowledge and beliefs. In education, there have been intense discussions about the difference and relationships between theory and practice. Many have contrasted researcher-generated, abstract, formal knowledge with the teacher-generated, local, concrete practical knowledge. The difference between cognition and emotion has also been long accepted, as evidenced by the long-standing use of Bloom's Taxonomy. Bruner's distinction between the narrative and the paradigmatic modes of knowing has been widely adopted in recent educational studies. Finally, the distinction between research, usually thought of as systematic inquiry that is open to public scrutiny, and reporting, narrating or story-telling, has also been widely accepted. While these distinctions often provide useful tools to understand reality, they are not very helpful, I claim, in understanding the nature of teacher knowledge, practice and learning as evidenced by teacher-

written cases mainly because teacher professional lives portrays an amalgam of these conceptually distinct categories. Indeed, there have been thinkers who had objected to these dichotomies. The recent use of the term narrative research (Gudmundsdottir, 2001), for example, challenges the distinction between traditional views of research and narrative. The case-writing process and the cases reported in this paper show an intertwining of these dichotomous categories often encountered in educational thought. Indeed, they serve as useful tools for border crossing. I shall exemplify this for three of these dualisms.

Formal versus practical knowledge. Teacher practical local knowledge is often contrasted with formal theoretical knowledge, with some educators casting doubts about the importance or utility of the latter for teachers, and even mystifying teaching by emphasizing the personal, emotional, and 'whole' language of practice (Carlgren, 2000). The cases produced by the present project show that the teachers used formal knowledge in constructing and reconstructing their experience, and that they fruitfully integrated practical and formal knowledge. As has already mentioned, five out of the six cases indicated that the teachers had changed their beliefs about invariable uni-intelligence and appropriated the theory of multiple intelligences introduced during the project. The cases, thus, show that using the design characteristics of the present project, with the emphasis on learning in practice (i.e. actual implementation of the innovation) and from practice (i.e. through reflection and deliberations, in a collaborative manner) can facilitate in appropriating formal knowledge and weaving it into the teacher's practical knowledge.

One particular case, by a teacher who held a Master's Degree in Education, was particularly laden with theoretical interpretations of events. Lina was a graduate of a program in science education that emphasized constructivism and conceptual change. She entitled her case 'Democracy and Prior Conceptions', and wrote towards the beginning of the case:

> Being a science teacher who is interested in student alternative conceptions or misconceptions, I felt during the first period that some students hold prior conceptions about democracy. In particular, some thought that particular peoples deserved democracy while others did not. In societies that deserve democracy people are free to do what they like because they have internal constraints that guide their behaviors. They saw no need for accountability or the rule of law—as if in a democracy there are no external constraints on behavior. I was not certain they really held this misconception, but it became more evident when I asked them to write down their own definitions of democracy. Samer answered, 'Democracy is the freedom of a person to do what he likes.' … Nidal answered that democracy was freedom. I still decided to withhold my final evaluation until later.

She went on to discuss another related idea that she felt some of her students held, that there is no need to hold representatives accountable to their constituency after elections since these representatives would have internal constraints to guide them to act. Later in the case, she wrote that she noticed students were adopting the political positions of their parents, and supporting the same political factions that their parents supported. She wrote about 'inherited ideas—ideas and beliefs that the

son inherits from his father, whatever the validity of these beliefs may be'. She also described how she confronted these prior beliefs, showing their limitations and shortcomings, and described her joy at the end of the unit:

> Samer gave up on his idea that democracy is freedom. While we were discussing the present situation in Palestine, and the possibility of separation of powers, Samer said: 'No authority or government should hold complete freedom.' I responded, echoing his own words a few weeks earlier, 'As long as we have elected our authority and representatives through elections, aren't they free to do whatever they like after that, to choose the means they deem appropriate? Isn't democracy freedom?' 'No, democracy does not mean freedom,' he answered angrily. 'What if these elected officials start behaving to serve their self interests, and abandoned the principles they proclaimed during the election campaign. Do we leave them to wreck havoc our society?' Samer's response made me feel the joy of success; it was a great accomplishment on my part to help Samer change his mind, something I really had not expected.

The case clearly shows that this teacher had internalized a conceptual change approach that guided her teaching; it guided her to view learning as a conceptual change process, to look for student prior ideas and to view student responses and student talk as indicators to these ideas, to make them explicit and clear, and to confront these prior ideas in order to facilitate conceptual change.

Lina's case also documented the relative failure that she and the class met in the first phase of the project, when students worked cooperatively in small groups to understand an element of democracy, such as the rule of law, accountability, the legislative process, or separation of powers, compared with the success they met when they were regrouped, using the jigsaw method, to re-study the problem at the beginning of the unit, that of selling food after its expiration date had passed in the Palestinian community. Lina used her knowledge of the theory of multiple intelligences (Gardner, 1983) and the relations between the nature of tasks, interaction, and the nature of discourse in small groups (Cohen, 1994) to make sense of, and explain, this difference in student interaction and learning. In commenting on the first use of group work she wrote:

> The results were a total failure probably because I was not aware of the need to structure the cooperative work within each group; I should not have allowed the group work to end up as individual work done within each group. … The task given to each group was individual in nature, requiring only one way to accomplish it and no varied abilities, so that each student could have done it alone. (Lina)

In contrast, in the second phase of the unit, students participated more equally, and the interaction was much better. Lina explained this, writing:

> The new tasks required students with artistic abilities to draw caricatures, others with social abilities capable of conducting interviews with specialists, and others with writing abilities to write the final reports. The tasks were multi-dimensional and needed collaboration and integration to accomplish them. … These tasks could not have been accomplished without the participation of different students having different talents and different intelligences.

Clearly, in these two instances, Lina was able to bring theoretical knowledge to bear when interpreting, and reflecting upon, classroom events. The unique case-writing

process used in the project helped her narrate practice, reflect and deliberate on it, get exposed to new knowledge or develop her own knowledge, and use it in reinterpreting and understanding practice. The case is a mixture of the narrative and the paradigmatic ways of knowing, and of theory and practice. The resulting knowledge for her is a case about teaching democracy using a particular case-based approach to eleventh graders, what we have come to call pedagogical content knowledge. But this knowledge is connected to the teacher's formal knowledge structure, and it cannot be classified as purely formal or purely practical. It also is an integration of thought and action, theory and practice.

Research versus narration. At face value, these cases used can be seen as stories—narrative accounts of different experiences of teachers involved in a collaborative experiment. However, as the description of the case-writing process described above might have revealed, teachers were involved in inquiry or research as part of the case-writing process, and the product of this research process was a case, a story or narrative, rather than the traditional research report. This form allowed them to provide the reader with their own perspective on events, their voice, their intentions, their emotional states, and their interpretations of events, but this account was socially constructed during the collaboration in the weekly workshops. Reflection, deliberations, exchange of ideas and knowledge allowed the teachers to construct and reconstruct their experiences into the final form represented in the cases. The term teacher research, or teacher-as-researcher, is usually associated with the teacher inquiring into her/his own practice. The cases reveal three 'objects' of teacher inquiry: teacher learning, student learning, and subject matter.

First, teachers inquired into their own practice, knowledge and beliefs, and the changes that occurred while engaged in the project. All six cases describe teacher learning with varying amounts of focus and details, with two cases dealing predominantly with this. The previously used excerpts from the cases exemplify the teacher learning that has occurred.

Second, teachers also inquired into student learning. One case previously mentioned, 'Democracy and Prior Conceptions', focused almost exclusively on student learning. The teacher discussed her initial ideas about student conceptions during the workshops, was often challenged, and had to defend her 'hypotheses' or modify them and test them in class, and come back for further interactions with her colleagues. For example, only after she was pressed to clarify her description of student prior conception was the teacher able to clearly define these conceptions, and to make sense of them. The description of student conceptions about democracy that appeared in her final version of the case was a description that was the end product of this lengthy collaborative research.

Finally, teachers inquired into the subject matter itself. For most of them, it was a subject matter with which they were unfamiliar. Consequently, part of this inquiry was devoted to understanding it themselves. However, they, along with their students, had to solve problems that they posed at the beginning of teaching the democracy unit, and to conduct research to answer the problems. The teachers also had to deal with questions arising from the implication of learning and teaching

democracy to the relations they had with their students. Does democracy entail allowing students more choice in the subject matter they studied or the way to learn it? How should concepts and principles like citizenship, civil liberties, accountability, rule of law affect classroom life? Teachers had to grapple with such questions, and many cases portray their efforts to answer these questions.

Emotion versus cognition. One of the conspicuous aspects of all six cases is their portrayal of the difficulty to separate teachers' thoughts from feelings or from action. While we use these categories to analytically understand teachers and teaching, they are all ultimately intricately intertwined in the teachers' experiences and in the cases that represent parts of these experiences. The cases portray the teachers experiencing cognitive conflict, sometimes with ensuing drastic shifts in their ideas, beliefs or practices, and additionally illuminate the emotional conflict, the emotional states and motivation of the participant teachers that accompanied the cognitive component. They indicate that teacher learning is warm and whole, unlike the cold cognitive learning portrayed in other accounts.

Most cases started with teachers expressing their anxieties about the new approach. The cases indicate that many were worried because they were not familiar with the content, but others were worried because of the change in teaching methods and roles that the new approach necessitated. One teacher wrote: 'I could not reveal my fears to my students, but informed them I was not an expert on the different facets of democracy'. Another teacher documented how her colleague expressed her anxiety, and inability to sleep at the beginning of the project, and the mutual support they extended to each other. I have also previously mentioned the anxiety that teachers expressed when they started writing the cases as well.

In other places the cases portray the joy and pleasure the teachers felt when some of their students became engaged in class activities, or when others changed their opinions or misconceptions about democracy. I have previously given one such example, the description of the joy of success that a teacher felt when she detected that important student learning had occurred. Other cases portray the guilt feelings that teachers had to deal with when they realized that they had not been treating their students in a just manner.

Conclusion

This study has shown that cases and case-writing can serve three functions: promoting teacher development, documenting teacher and educational change, and facilitating explaining this change. While the value of the first function is well known in the literature, the other two functions are less recognized. Additionally, while the first function exemplifies the value of the cases to the teacher-authors, all three functions exemplify the value of the cases to the field of education and educational research. The use of case-writing as part of a collaborative action research project has contributed to underscoring these three functions. I have argued in this paper that case-writing and cases serve to cross borders between seemingly opposite dichotomous categories or domains. It is precisely this feature of the process of

case-writing and the product in the form of cases that allows this cross-fertilization characteristic of authentic professional practice, where the theoretical and the practical, research and narration, reason and affect intertwine.

We have moved in the study of teachers and teaching from an emphasis on the theoretical, the research-based knowledge, and the cognitive to an emphasis on the practical, local, concrete, narrative and affective modes of knowing. The present study reminds us of the necessity, and possibility, of creating borderlands that allow us to promote, describe and understand teachers and teaching as a profession. In regards to the formal/practical dichotomy, Shulman (1986) wrote more than a decade ago about the necessity of 'careful confrontation of principles with cases, of general rules with concrete documented event – a dialectic of the general with the particular in which the limits of the former and the boundaries of the latter are explored' (p. 13). The teachers in our study exemplify creating a borderland for doing that—for confronting and accommodating the formal and the practical.

In regard to the cognitive/emotional dichotomy, the cases in this study serve to re-emphasize what others have asserted about the nature of cases. In his foreword to a certain casebook, Sykes wrote:

> These cases also faithfully portray the *inseparability* of thought feeling and action in teaching. From an existential outlook, such old-fashioned terms as hope, fear, awe, disappointment, provide, joy, disgust, and satisfaction provide a window to teaching, for whatever else goes on in school and university classrooms, teachers and students experience a stream of emotions that affect all else. These accounts serve as reminders about this neglected dimension of teaching and learning, and this is no surprise, for the chapter authors are themselves teachers who cannot fail to notice their own feelings. (1992, p. vii; emphasis added)

The study created a process and an environment that made the study and portrayal of the whole affective-cognitive lives of teachers possible.

In regard to the research/narration dichotomy, the narration process became also an inquiry process. Dewey (1938), as Roschelle (1999) reminds us, viewed inquiry as sitting on the boundary between commonsense and scientific reasoning: 'it is an available tool in both realms, and the prime instrument of the development of the latter from the former' (Roschelle, 1999, p. 235). Teacher collaborative research in general, and of the type presented in this study in particular, blurs the boundaries between narration and research by allowing a more systematic, disciplined, and open process of inquiry-oriented narration. It allows, in the spirit of what Philips (1993) and Fenstermacher (1994) have called for, the justification of teacher practical knowledge.

However, to better create and design borderlands that allow this border crossing, we need to better know and understand how the discourse of practice and the discourse of research (Fenstermacher, 1994) coexist and interact. This, and other studies, are beginning to explore this borderland.

Finally, the present paper also aimed to document the case-writing process in sufficient detail to allow for adoption or adaptation by others. The product of this process (i.e. the cases themselves together with commentaries by educators and educational researchers) were prepared for publication in a case-book (Hashweh, in

press). With hindsight, I believe we could have made the process of writing more effective by providing the commentaries to the teachers to use them as feedback during the writing process. This would have afforded the teachers more reflection and deliberations, and would have extended the learning community beyond the actual participants in the project.

Acknowledgements

Notes on contributor

Maher Hashweh is an Associate Professor of Education at Birzeit University. His interersts are in science education, with an emphasis on student conceptions in science, teacher knowledge and beliefs, and research on teaching, teacher professional development and democracy education. He currently heads the Department of Education and Psychology at Birzeit University.

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