Pupils as action researchers: Improving something important in our lives*

Branko Bognar and Marica Zovko

Branko Bognar

Josip Juraj Strossmayer University of Osijek, Croatia

Marica Zovko

Vladimir Nazor Primary School in Trenkovo, Croatia

Abstract

Although an increasing number of teachers carry out action research inquiries in their educational practice, the role of pupils and students is not still sufficiently explored. In spite of the theoretical requirement for pupils to be equal participants, researchers explored the possibility of their becoming fully-fledged action researchers. This report reveals how ten-years-old pupils take over the whole processes of action research themselves. Researchers realised that action research is not a teaching strategy for gaining better educational results, neither is it a preparation for life: it is life itself. They believe that traditional schooling cannot create a conducive atmosphere for pupils to carry out their own action research. This study shows that it is possible to do this only in a child-oriented school whose main purpose is the development of the creative potentials of all participants. In the inquiry the pupils determined their own challenges with the aim of improving something important in their own lives. Researchers showed that action research is meaningful only if students engage with it on their own terms, on the basis of their own needs, interests and self-chosen values. Anything that hinders pupils' freedom will only compromise the foundations of action research itself and any educational value accrued from it.

Keywords: Action Research; Pupils Action Researchers; Child-centred Education.

a) Philosophical background

When more than 60 years ago Kurt Lewin and John Collier promoted the idea of action research, they were not just concerned with methodology. Their central interest was far deeper. They realised that science, stripped of its sophisticated methodologies, could serve evil as well as good:

> Unfortunately there is nothing in social laws and social research which will force the practitioner toward the good. Science gives more freedom and power to both the doctor and the murderer, to democracy and Fascism. The social scientist should recognize his responsibility also in respect to this. (Lewin, 1946, p. 213)

By putting a clear emphasis on values Lewin and Collier stressed the importance of the philosophical and creative aspects of science. As Collier (1949) wrote:

> The whole man is the productive social researcher: to wit, that the feeling-out, the tracing, and the persuasively and courageous statement of the implications of research findings is the way that the findings are brought into world meaning, the way that values generically emerge from scientific findings, and one of the ways that social science delivers its weight to the world. (as cited in Cooke, 2004, p. 27)

Although this approach was not immediately acceptable to a wider academic audience (Hodgkins, 1957) and even to Lewin's closest co-workers (see Lippitt, 1949, as cited in Cooke, 2002; and Lippitt, 1950), contemporary approaches increasingly acknowledged the importance of values in an action research inquiry (Foshay & Wann, 1954; Whitehead, 1989; Stringer, 1996; Kemmis & McTaggart, 2005; McNiff & Whitehead, 2006; Reason & Bradbury, 2006). This approach was seen as very different to the positivistic approach in which researchers are supposed to refrain from expressing personal values so they can gain an 'objective' understanding of social phenomena. However, by repressing the integration of their values into their research, scientists merely realise someone else's aims, bringing into question fundamental presuppositions about professionalism and autonomy (Stenhouse, 1975, p. 144). Indeed, the value-neutral approach is itself value-driven, but in this case it is the values of the person or organisational body that buys the skills of the scientific research that prevail, and these are mostly representative of ruling structures, or sometimes powerful or rich people who are able to engage experts to forge their own desired ends. Social scientists support hidden value-systems, often based on authoritarianism, with an orientation towards profit. Independent professionals can observe problems and then try actively to contribute to their resolution.

Claiming particular values does not necessarily represent an effort to achieve personal advantage: on the contrary it can be an expression of professional freedom as well as a sense of responsibility for creating the world we live in. The main precondition of any responsible contribution to a better world presumes that we are concerned about freedom for everyone. Hegel (1900) claimed that freedom is not just a quality of Spirit but a fundamental pre-requisite: 'All the qualities of Spirit exist only through Freedom; that all are but a means for attaining Freedom; that all seek and produce this and this alone' (p. 17). As opposed to matter, Spirit has a self-contained existence, grounded in freedom:

For if I am dependent, my being is referred to something else which I am not; I cannot exist independently of something external. I am free, on the contrary, when my existence depends upon myself. This self-contained existence of Spirit is none other than self-consciousness—consciousness of one's own being. Two things must be distinguished in consciousness; first, the fact that I know; secondly, what I know. In self consciousness these are merged in one; for Spirit knows itself. It involves an appreciation of its own nature, as also an energy enabling it to realize itself; to make itself actually that which it is potentially. (Hegel, 1900, p. 17)

This leads us to another important question: What is the essence, nature or truth of a self-aware and free subject? This does not refer to what already is, that is to say Being and knowledge about it, but that it is true in that sense in which it exists as a potential. Whatever has potential is not simply a matter of scientific knowing but creativity; and only that is able to bring an idea into being. On the other hand social science inquiries try to put emphasis on what is, not on what ought to be:

Social philosophers liberally mixed their observations of what happened around them, their speculations about why, and their ideas about how things ought to be. Although modern social scientists may do the same from time to time, it is important to realize that social science has to do with how things are and why. (Babbie, 1992, p. 28)

If this pre-condition were applied to the situation in Auschwitz during the Second World War, it would mean the social scientist was not expected to change a particular situation, but only to make an effort to detect the precise situation and then find a related cause. Everything else would be beyond their immediate responsibility. However, determining any *social truth* in Auschwitz at an epistemological level would be meaningless, because any such inquiry would deny human potential. The results of such research would be factual but meaningless in relation to a better world. We believe it is the duty of every human being to try to change such *untruthful* situations, and not merely to enquire about them *scientifically* (See Bognar, 2001a, p. 75).

Through creativity, freedom is not just a possibility but a fully-realised humanity – our culture. However, from ancient times the most important problem of scientific thought has been the separation of two important aspects of the human mind. Aristotle divided the mind between the theoretical and practical:

Whereas in the theoretical mind, the observation of thinking or reason, which is not interested in action - it is inactive since it deals with that which is unchangeable, that could not be different, i.e. with that which is inevitable. Whereas the practical mind, or moral will, deals with what could be different, since it is not inevitable but on the contrary possible. Aristotle also recognized that for the theoretical mind, i.e. observing thinking or scientific reason, good and evil are not anything else other than simply truth and untruth. Truth is goodness and untruth is evil. Therefore, in the theoretical mind the separation of knowledge from values does not exist, they are interlaced. But the theoretical mind per se is meant as inactive, contemplative, pure observing. It is not involved in the existence of its matter

(which is that what is by itself, and which does not depend of observing subject). (Polić, 2006, p. 15[1])

It is only the modern concept of practice, that in fact means creativity (Kangrga, 1984, p. 23) that can prevail over such a separation of theory and practice: only in the act of creativity is there no separation of artistry, theory, action, and epistemology. *Creativity seeks for truth, but its truth is not something that already exists; on the contrary its truth is that it does not exist yet, but that it should be produced, created.* Truth for a composer is the music they want to create; truth for a teacher is the educational environment they want to attain. And this truth cannot be actualised through scientific research whose aim is making a perfect description of an imperfect situation, but only by our personal engagement in the processes of creativity grounded in our values – and their main precondition - freedom.

Each practice possesses its own medium of expression: for music it is sounds, for poetry it is words, and for education it is the relationships between the people learning together. If a composer wants to make their music available to other people as some kind of cultural deed they can express it in a symbolic form, e.g. in the form of an orchestral score, or as music recorded on a compact disc. In the same way we need to make available our educational experiences, but not merely as theories that represent abstract experiences, but as living forms (see Whitehead & McNiff, 2006) which reveal the interlinking of our theorising and actions. Representation of our creativity, or methodology, should also be creative. Therefore a methodology should not restrict practice, but serve as a medium of its own representation, understanding and dissemination.

Action research represents one such possibility of considerate, deliberate and creative action that finds its challenges in various social situations but does not intend to give final answers to all the problems practitioners face. The problems themselves serve as motivation for devising solutions that are historically and contextually fulfilling. The solutions practitioners create should respond to the requirements of specific contexts and the times in which they have emerged.

Thus the eternal quest for an oracle to offer universal solutions for all specific problems practitioners can face in their everyday practice ceases to be appropriate. Each genuinely creative solution is deeply connected to the particular context in which the creators are taking action. If somebody tries to replicate something out of a particular historical context, then it is merely a copy that through replication becomes dimmer, finally becoming a caricature of its former creativity. This can easily be discerned in art, but it is visible in other creative fields including education. We are not saying that a creative deed is valuable only in an ephemeral historical context, after which its significance cease to exist. In fact a genuinely creative deed possesses universal value since it indicates what is left behind – and this is the creative human being. In a creative process everything already made (culture in the widest sense) serves as a means or inspiration for new creation.

Therefore, the final meaning and purpose of creativity are not revealed from within a single deed or in a theoretical explanation of the process, but in the essential energies that gave rise to the deed. By creating something a human being produces their own world and

---

[1]   Trans. Bognar.

also their own creative impetus. It means that the end-purpose of creativity is the human being who has produced their own humanity – their innate culture.

Following this logic, the purposes of science therefore cannot be reduced to the excavation of more and more theoretical explanations of current situations based on a ritual application of statistical or qualitative procedures. Instead it can become part of a creative process oriented to life with the awareness, thoughts and inclination that it should be enabled differently (Kangrga, 1989, p. 35). In a creative approach to science, theory does not exist only in relation to what already exists as a mere epistemological function, but represents the genuine birth of the creative process, referring to that which is not yet realised, but which could be.

In that sense, *we believe the central point of an action research inquiry is not merely acquiring knowledge, but developing our creative potentials and it is only from them that we are able to create new realities, and thereby new knowledge*. The focus of such an approach to action research is therefore in our own practice, not other people's. At the centre of action research process are active and autonomous people who

> ...speak on their own behalf and encourage others to do the same... In living theory approaches researchers focus on themselves and their own learning. They recognise that they are always in company with others, so reflecting on one's practice with others means investigating how one can ensure that the practice is educational, that is, mutually beneficial and life-affirming to all parties. In undertaking action research a researcher is investigating how they can improve their own learning so that they are better placed to help others. (McNiff with Whitehead, 2002, p. 89)

We began our research from the assumption that action research denotes a process of systematic and productive actions. These presume a philosophical consideration of values, creatively and in visionary ways – devising new challenges, actively participating in the realisation of productive ideas, gathering data about the process of creation, (self)critical reflections, monitoring of the whole process, publishing the results of our efforts (theorising, (co)creating, reflecting and learning) and the generalization of the living theories that have emerged from the process of (co)creation. *Generalizations in this case can only be obtained actively - through new processes of (co)creation so that our living theories could become part of our local culture and perhaps contribute to culture at an international level*.

This paper is a short story of life-long endeavour for creative approaches to action research that have been grounded in our shared sense of freedom as the most important value. The philosophy fuelling this effort has allowed us to be aware of what we wanted to do and what constituted the essence of our educational activities. This is not mere armchair-philosophy committed to abstract academic discussion, but a philosophy which remains a part of our creative lives. This is a living form of philosophy.

b) Personal and professional contexts

i) Marica's personal and professional contexts

I teach in a small, rural school in a village called Mihaljevci. This is the same village I was born in and where I met my husband with whom I now have two grown-up children. I grew up in a traditional worker's family that did not nurture my freedom and independence. I graduated from secondary nursing-school and my parents wanted me to study medicine. Nevertheless I enrolled in the Teachers Academy in Zagreb at my husband's suggestion. When I had finished at the teachers faculty in 1985 I was not able to find a full-time job and because of the bad economic situation at the beginning of the nineties I had to spend several years abroad working as a nurse in a hospital. Although it was not what I wanted I gained useful experiences from the German school-system as my children attended school in Frankfurt where we then lived. Finally, when my husband and I got a full time job in Croatia in 1997 we decided to return and continue our private and professional lives in our homeland.

I was lucky to be hired in the school in the village where I was born and owned a family house. I was finally able to devote myself to the job that was becoming a vocation. In the beginning we – the teachers in the school – organised parents to help us in the arrangement of the school environment. I also embarked on my own professional development, which became more intensive when I met Branko Bognar who was organising a learning-community with the aim of helping teachers improving their practice.

Figure 1. Marica's classroom

My school, where there are three other teachers, was built 30 years ago and was recently refurbished. Apart from the children from Mihaljevci, pupils from two neighbouring

villages also attend this school. At the time of our research we only had two classrooms with old furniture, a hall and an improvised teachers' room.

Teaching in the school is organised into two shifts and between those shifts there is a programme of pre-school education for children who are going to carry on with their schooling the following year. Teaching for the morning shift starts at 8 o'clock and lasts until 12.15. Afternoon school begins at 13.30 and finishes at 17.35. The lunch hour, as in other Croatian schools, lasts 45 minutes and there is a break between each lesson of five minutes. There is also a long break that lasts for twenty minutes after the second lesson. Because there is no bell in the school teachers decide for themselves how long the various activities last. This means that some classes are longer or shorter than the designated times. Teachers don't have this kind of autonomy in the bigger schools where lessons are determined by the school bell. Teaching is organised in a framework of six subjects, which are not connected but systemised through their orientation towards propositional knowledge.

I started my collaboration with Branko in 2000 after he informed me about his new project on teachers' professional development and action research. Although I derived theoretical knowledge and information about action research within the context of the learning-community led by Branko, I lacked sufficient confidence to take the initiative to go it alone. At this stage I was a reflective practitioner, but had not made the leap to being a fully-fledged action researcher. I was exchanging emails with Branko on a daily basis – a dialogical form of learning through e-correspondence. This process seemed to offer me the learning-opportunities I needed at this stage in my professional development. I tended towards this style of learning rather than a more community-based one. However, participation in the learning-community encouraged me to start with changes in my teaching.

Video 1.   [The meaning of a learning-community for my practice](http://...) (Bognar, 2008e)

During this period I started to consider my own practice more deeply, and for the first time realised it was important to recognise the individuality of my pupils. I also recognised how much this viewpoint deviated from a more traditional view of teaching. During the three years of co-operation and action research inquiries I facilitated them in free play (Isenberg, Jalongo, Reck, 1997, p. 41). I also tried to help them with their socialisation and in their critical thinking skills. These aspects comprised my action research cycles.

ii) Branko's professional context

I was employed as a teacher at the end of the eighties and after six years spent in the classroom I completed a study of Pedagogy and started to work in another school, named after the poet Vladimir Nazor, in Slavonski Brod, which is 50 km away from Marica's school. The role of a pedagogue in Croatian schools isn't fully specified but is generally dependent on the expectations of the head-teacher. Unfortunately in most schools a pedagogue's job is reduced to various administrative, organisational and technical activities. I found such practices to be unsatisfactory. In the first year of my pedagogical practice I was disappointed because as a teacher I'd been able to utilise my creativity more effectively. My technological knowledge enabled me to complete administrative tasks very quickly. So, I taught other school administrators and the head-teacher how to use a computer and in that way I freed up my time for more meaningful tasks: for example, teachers' professional education, or working with pupils. I was able to inaugurate and head-up schools projects. In a short time those kinds of tasks were to become perhaps my most significant endeavours.

At the end of the nineties I enrolled in a postgraduate study of Pedagogy at the Philosophy Faculty in Zagreb. Then, for the first time, I discovered action research and decided to achieve my MA research in that discipline and to help other educators to become action researchers as well. I also tried to popularise action research in a Croatian educational context in general (Bognar, 2001b; 2004b; 2006a; 2006b) and in my school in particular.

Figure 2.   A meeting of teacher action researchers

Marica and I started our intensive professional cooperation in 2000 in the project: 'A critical emancipatory approach to the professional development of primary school teachers,' which I had begun as my postgraduate research. The aims of the project were to facilitate reflective practice and action research processes - to help teachers to undertake new roles in our Croatian context as reflective practitioners and action researchers. Overall my intentions were to move from a technocratic to a more creative view of teaching and learning.

Most participants of this project were teachers from my school and some of them were from other schools in the area, like Marica. Because the place she lived and worked in was 50 km away, she had to drive to my school every second Wednesday evening of the month to attend workshops/meetings of the learning communities. In addition to meetings, participants visited each others' lessons, which were videotaped, and there were occasions for me to visit the project-participants' classrooms, some of which were also video-taped.

After the end of the whole project three teachers, including Marica, decided to carry on working with me (Figure 2). We wanted to start a new project with the aim of working on several quality action research inquiries and publications, initially as a book, and then later, when opportunities arose, to publish papers abroad. To ensure our continuing co-operation we decided to organise regular meetings on Saturdays and to communicate by using a forum at the internet.

c) Our educational values

i)   Marica's values

For the first time I clearly began to understand my values when I joined in the project: *A critical emancipatory approach to the professional development of primary school teachers*. Within the learning-community we talked about the meaning of autonomously-developed values and tried to work out the difference between espoused theories and theories-in-use (Argyris & Schön, 1975). This helped me in a thorough consideration of my educational practice and accelerated the processes of change. I wrote about the process of taking over the responsibility for defining and living out my values at the Moodle site that Branko had established for the learning and cooperation of action researchers in his Ph.D. project:

> I became acquainted with the concept of personal educational values several years ago when I took part in Branko Bognar's projects. I have to confess that working in a traditional school only required me to fulfil the official curriculum based on some general social values and aims. At that time I did not consider my personal values to have any special meaning. I often call this phase of my practice, 'teacher-craftswoman' as it was not really important to reflect on my job, but only to follow guidelines from my superiors. Today such a relationship with my job is past history, but more about this process another time. (Zovko, 2005)

After active participation in the project-team and constructive discussions with Branko as well as other participants, I then considered freedom to be the main value I was

endeavouring to fulfil in my life. However, for a long time freedom had been a neglected value in my life. It seemed to me that it would never have been achievable in my current circumstances until then. I always tried to find a justification for the limitations of the system, and in my wish to satisfy official expectations I was not able to live out my professional as well as personal freedoms as I was afraid of the responsibility that freedom demands. When other people made the decisions about everything, I did not have to take the responsibility for the results of my activities. When my values developed and I started to live out my value of freedom, I started to respect the freedom of my pupils as well. Alongside freedom, cooperation began to have a significant place in my value system, and I started to become more aware of other people's values.

Video 2.   Initial video of Marica Zovko's teaching (Bognar, 2008d)

I became aware of my living contradiction (Whitehead, 1991) when I watched my teaching on the video that Branko had organised. I recognised my domination of the classroom and the lack of my students' freedom to express their ideas and creative abilities. However, even at that time (which I call the period of being a teacher-technician) I was still able to allow students their own creativity but only as an addition to my lesson and not as its central part. Namely, at the end of teaching (Video 2) my student Anica informed me that she had prepared a play with puppets, and so I allowed her to perform it for us.

ii) Branko's values

I was aware from early adolescence that freedom was the most important value I wanted to live out. I considered freedom something that anyone could aspire to through their own creativity. A deep appreciation of freedom and creativity as my driving values were the main reason I decided to take on action research as the creative approach in my own practice and in a wider educational context.

During the nineties in Croatian society and in wider regions, despite an ostensible acceptance of democracy, the opposite processes were actually taking place (Čular, 2000; Lalović, 2000). This was particularly apparent in the school system under the strong control of the state-legislatures. Every liberal idea and initiative was under suspicion and instead of opening towards the needs of children schools came under the influence of contemporary political interests. It meant that everything significant was decided outside of the schools themselves[2].

In such circumstances it was not easy to live out the value of freedom or to avoid a clash with the authorities. In spite of that both of us (independently of each other) tried to live out our values, striving to put an emphasis on the methodologies of active learning, education for human rights, peace studies (Branko) and critical thinking (Marica). It is important to emphasise that this inquiry started at the time when, in our wider social context, real democratic changes had begun, without which we could not have made significant improvements in our practice.

After three years of trying to match her teaching to the needs of her pupils Marica seemed to lack ideas on how to continue with the improvement of her teaching in accordance with her educational values. At a meeting of the learning-community organised at the end of 2003 I suggested she try to help her pupils in their independent action research inquiries. She accepted this suggestion with enthusiasm. Therefore, we started this process of action research with the following question: *How can we help the ten-year old pupils to become autonomous action researchers?*

d) Action research plan

i)   What we knew about pupils as action researchers

John Dewey was one of the first advocates of the notion of students' inquiries. He considered that thinking represented a basic method of intelligent learning and that thinking was, in essence, a process of inquiry:

---

[2]   At present in Croatia the curriculum is strongly subject-oriented, with an accent on the cognitive capacity of students. The central authority (The Ministry in co-operation with national expert bodies) is responsible for: the process of curriculum-design on different administrative levels; the collection and dissemination of curriculum-related information; understanding the needs of societal development, and reflecting these in the education system; defining basic and new skills (particularly language learning, computer-use, communication skills, problem solving capacity, teamwork, project orientation etc.).

The process of curriculum design takes no account of either the issue of decentralisation or the relationship between central and local decision making. The legislative, regulatory and financial framework does not leave room for qualified local actors being involved in the design or flexible adaptation of curricula to new social needs and labour market requirements. The university and teacher-training institutions, the teachers associations, NGOs, the social partners - including the very active Chambers of Craft and Commerce - are now seen as outsiders rather than legitimate stakeholders in the system who should play a role in curriculum design and articulation. (OECD, 2001, p. 12)

> To say that thinking occurs with reference to situations which are still going on, and incomplete, is to say that thinking occurs when things are uncertain or doubtful or problematic. Only what is finished, completed, is wholly assured. Where there is reflection there is suspense. The object of thinking is to help reach a conclusion, to project a possible termination on the basis of what is already given. Certain other facts about thinking accompany this feature. Since the situation in which thinking occurs is a doubtful one, thinking is a process of inquiry, of looking into things, of investigating. Acquiring is always secondary, and instrumental to the act of inquiring. It is seeking, a quest, for something that is not at hand. (Dewey, 1921, p. 173)

For Dewey, thinking based on inquiry 'includes all of these steps, - the sense of a problem, the observation of conditions, the formation and rational elaboration of a suggested conclusion, and the active experimental testing' (ibid., p. 174).

It is important to mention, however, that Dewey considered experimental research in Physics to be a model to which social sciences should also aspire (Dewey, 1929, p. 251). From that we can conclude that students' inquiries should be a kind of experimental research distinct from positivist and post-positivist scientific paradigms (Lincoln & Guba, 2000, p. 165, Heron & Reason, 1997). In terms of our intention to help pupils to become action researchers, Dewey's idea was not fully appropriate since action research and experimental inquiries belong to different research- paradigms. But we accepted Dewey's ideas of progressive and democratic education anyway, based as they were on active, experiential learning in which students autonomously determine and define their own problems; this represents the foundation of the project-method configured by William Heard Kilpatrick (1918). He emphasised the importance of purposeful acts in which the purpose was determined by students:

> As the purposeful act is thus the typical unit of the worthy life in a democratic society, so also should it be made the typical unit of school procedure. We of America have for years increasingly desired that education be considered as life itself and not as a mere preparation for later living. The conception before us promises a definite step toward the attainment of this end. If the purposeful act be in reality the typical unit of the worthy life, then it follows that to base education on purposeful acts is exactly to identify the process of education with worthy living itself. The two become then the same. All the arguments for placing education on a life basis seem, to me at any rate, to concur in support of this thesis. On this basis education has become life. And if the purposeful act thus makes of education life itself, could we reasoning in advance expect to find a better preparation for later life than practice in living now? (Kilpatrick, 1918)

We accepted Dewey and Kilpatrick's idea that the purpose of students' inquiries, and thereby students' action research inquiries, should not be education for a future life, but that education *is* life. In that sense, if students do not choose a concern for their action research by themselves, but it is done by adults, as, for example, in Bill Atweh's, Clare Christensen's and Louise Dornan's (1998) research, then it is questionable whether this should be considered full-blown students' action research. In that particular example of participatory action research, poor students in the final year of middle-school from a very low in a Brisbane school were invited to participate in a three-year project whose aim was 'increasing the participation in higher education of students from low socio-economic background schools' (ibid., p. 117).

Students had an active role in all phases of the project, except in the determination of the problems emerging from the value-orientation of 'four university researchers who shared a commitment to social justice and equity issues' (ibid., p. 121).

The project consisted of three phases:

(a) attending training sessions at the university; (b) planning the study and gathering the data required to identify the need to increase student participation in higher education from their locality; (c) analysing the data and writing a report from this investigation with appropriate recommendations. (ibid.)

Although most of the students did not seem to feel alienated from the aims of the project two of them expressed their sense of a lack of proprietorship:

For one student, the input from the university staff gave the students a sense of lack of ownership over the project. She felt that 'We were doing it all for them sort of thing'. To her the task was a job that you had to do to please the employer. Another student felt that the students were used as guinea pigs in an experiment to see how the methodology can be utilised. (ibid., p. 128)

In our opinion those reactions were the result of students not feeling included in the very important part of an action research inquiry – the selection of the concern. However, this project allowed students to contribute to the main project-aim, thereby increasing the participation in higher education of students from schools in low socio-economic areas with their action research reports. 10-minutes of video-footage about the project were made with the aim of helping students from similar schools to engage in similar projects.

We also decided to videotape the presentations by the pupil action researchers and in that way make them available to students and teachers from other schools. As our pupils were ten-year-olds we were not sure whether they would be able to take control of the complex processes of action research. We were encouraged by the experiences of researchers from different parts of the world presented in Priscille Alderson's (2000) account that showed that even pupils from the early years of primary schooling were able to conduct 'child-centred research'. Alderson noted several different levels of control-sharing and of children's involvement in the research process:

At the lowest levels is the pretence of shared work: manipulation, decoration and tokenism. The next levels involve actual participation: children being assigned to tasks although being informed and consulted; and adults initiating but also sharing decisions with children. The top two levels concern projects more fully initiated and directed by children. (ibid. p. 248)

We realised it was not sufficient for students merely to participate in action research initiated and conducted by teachers, they needed to take control over all the essential phases of the inquiry in order to become real action researchers. However, it became clear to us that a traditional school (in which pupils are just 'passive recipients of official truths' (Kincheloe & Steinberg, 1998, p. 13) would not be an appropriate place for the realisation of pupils' own action research. We were aware that it would be possible only in a school where the pupils could become self-directed human beings:

In our view the authority of the critical teacher is dialectical; as teachers relinquish the authority of truth-providers, they assume the mature authority of facilitators of student inquiry. In relation to such teacher authority students gain their freedom – they acquire the ability to become self-directed human agents. (ibid., p. 17)

Despite our readiness to help pupils to take over the role of action researcher there was a lack of specific examples from other teachers who had experience in it. In the available literature we were not able to find practitioners' research suitable to our professional context – primarily for ten-year-old pupils. However, this did not discourage us since we had a confidence in the pupils' potentials being higher than expected from a traditional school.

ii) What we intended to do

Marica's plan

Before starting my research I announced a plan at the virtual space of cooperation[3] which we were using to facilitate cooperation between a group of teacher action researchers. I decided first to familiarize pupils with the procedures for data-gathering. I presumed that ten-year-old pupils would be able to learn how to conduct an interview, compile questionnaires and rating-scales, and know how to keep a research-diary. To achieve those ends I made a time-specification of three weeks. After that period I planned to devote a week for the negotiation of choosing an area for improvement. It seemed to me that it would be appropriate for pupils to improve their relationships with others and present the results of their learning. Branko warned me that in the process of planning I should include the pupils, since action research is not research *on* but *with* people (Reason, 1994). I accepted this suggestion and it meant that I did not develop a detailed plan after all but refined it instead with my pupils, all of us working together. In the process I respected the suggestions of my critical friends about my increasing understanding of the action research process. I worked out what might need to be done to help the pupils to achieve their own desired activities during the two-or-three-week period, and then I worked out how to obtain validation for their research. Several teachers positively commented on my ideas and plans to help pupils become action researchers themselves:

> Marica, I've read your new AR plan. It seems much clearer and achievable - if indeed I understand it properly - that your pupils are becoming action researchers. Very interesting. (L. B., personal communication, December 9, 2003)
>
> It would be interesting to follow up on you and your pupils. (J. Z., personal communication, December 9, 2003)
>
> After reading your new plan and experiences with young action-researchers, I have a better insight into your research, which I like and which is going in the right direction. It also illuminates a road for the rest of us. (V. Šimić, personal communication, January 1, 2004).

---

[3]   This forum was available only for members of the research team; therefore it represents a type of personal communication over the Internet.

Branko wrote the following reflective record at a later time about my plan and research:

> Marica started with this activity although she did not elaborate her plan in detail. However, her excitement about the research was more significant. Anyway, is it possible for us to plan everything in advance if action research truly is a cooperative process in which emphasis is placed on respecting other participants, especially if they are also action researchers as is the case with Marica's pupils!? (B. Bognar, personal communication, 2005)

Branko's plan

My interest was connected with the teachers' action research so that meant my plan was somewhat different from Marica's. I planned the following:

a. To help Marica and other teachers in the realisation of their action research. I intended to place a particular emphasis on familiarizing participants with examples of teachers' research conducted abroad as such examples were not numerous in Croatia. In addition I planned to teach teachers about how to gather data from their activities and infer meanings from the results.

b. I decided to provide support to teachers using the Internet and at regular meetings on a Saturday.

c. I also made an agreement with teachers about visiting their classrooms as a critical friend. Those visits had a dual purpose: giving feedback to teachers about their activities during their action research inquiries; and helping them with data-gathering in particular; videotaping their classroom activities. However I was not able to predict something that later became very important for this inquiry:

> What I hadn't planned, and which has emerged as a possibility, is the cooperation with action researchers from abroad, that is becoming very important and makes an important contribution to the achievement of the wider aim – the popularisation of action research in our region. (B. Bognar, personal communication, March 14, 2004)

iii) Data-gathering and criteria for judgement

Since most communication was in written form via the forum at the Internet, it became an important source of data. We also made an agreement to keep our research diaries on the Internet forum[4]:

> This forum provides us with the possibility to write down concisely what we have done, what we are thinking, what problems we've noticed and what we intend to do about them. For everything we write down we can get feedback from other members of the team very

---

[4] The research-diary represents an important data-source in action research (McNiff, Lomax & Whitehead, 1996; Mills, 2000; Altrichter, Posh & Somekh, 1993) but it was also mentioned as a possibility in action research literacy recently (e.g. McNiff & Whitehead, 2006). Our personal communication was realized mostly through the internet forum.

quickly and we do not need to inform them about our postings since we all regularly read and write our postings at the forum (which I am especially pleased about). I suggest that at least twice a week each of us write down what s/he has achieved in their research even if it seems unimportant. (B. Bognar, personal communication, November 16, 2003)

We intended to use video and audio records and photographs as important sources of data. Although film and particularly photographs have had long a tradition in ethnographic research[5] they are relatively rarely used action research inquiries in spite of their great potential. But fortunately there have been changes, especially in action research at the University of Bath in England with Jack Whitehead and his colleagues (e.g. Whitehead, 2003; Whitehead, 2005a; Farren & Whitehead, 2005). Videos have been used for archiving as well as for qualitative and quantitative analyses of teaching activities, and for encouraging teachers' reflective thinking (Spindler & Spindler, 1987). So the use of video was becoming increasingly important because it enabled action researchers to see what they were actually doing in their classrooms and what their actions looked like from another perspective. In addition we thought it would produce very important evidence to help teachers in the generation of their reports; we thought the reports ought not to depend entirely on written words or questionable feedback, as they would not be able to depict a living situation in the teacher's practice. We agree with McNiff & Whitehead (2006) in their statement that 'the development of multimedia narratives is an exciting and important innovation in the field' (p. 144) and we would add that videos can contribute to the quality of action research as well as the learning of teachers, especially at an international level[6].

In our case, we intended to use videos as evidence of the success of planned improvements. Since the main aim of this project was the pupils' independent action research inquiry, it was important to determine whether they really were able to perform and understand all the important phases of action research in order to gauge their progress. For example, did their research show:

- the choice of a concern on the basis of educational values;

- planning;

- the realisation of a plan;

---

[5]   Anthropologists Margaret Mead and Gregory Bateson were pioneers in the use of film for ethnographic research. They first used cameras—both still and motion picture—in their work in Bali in 1936-1938. They used film to record 'the types of non-verbal behavior for which there existed neither vocabulary nor conceptualized methods of observation' (deBrigard, 1995 as cited in Ulewicz & Beatty, 2001, p. 5).

[6]   Ulewicz & Beatty (2001) point out that video technology has become a powerful methodological tool in comparative educational research and teachers' learning:

> International video studies generate data that may create audiovisual glossaries of teaching strategies and skills that expand the repertoire of possible teaching approaches. This audiovisual glossary provides a reference point for teaching practices that are difficult to describe in words, particularly when foreign languages and cultural contexts create barriers to interpretation and communication. Carefully-selected videotapes can introduce teachers to a variety of practices, to help them rethink what they might otherwise take for granted; to consider the pros and cons of different approaches, and, in general, to become more reflective practitioners. (ibid., p. 1)

- data-gathering and data-analyses;

- working with a critical friend within a defined relationship;

- writing;

- a presentation; and finally

- the validation of an action research report?

With the aim of determining Marica's pupils' understanding, we conducted a group-interview with them. The validation was planned to take place in Marica's and another teacher's classroom. The possibility of presenting the results of this research at an international level via video emerged afterwards.

Since both of us were emphasising the significance of freedom as a shared value we considered it to be very important to allow pupils to decide freely whether they wished to engage in action research or not. Therefore, the engagement in an action research inquiry was not an imposed activity. This was, ipso facto, a criterion for the success of the project.

e) The realisation of the plan

i) How I helped my pupils to become action researchers – Marica's story

Although I tried to achieve a environment that was conducive to learning for children by taking into account their distinctiveness and by developing their independence, I still considered this could be improved upon. In previous attempts I had endeavoured to develop my pupils' competences, to empower them in the important aspects of school life, and help them in the recognition and development of their own potentials. Some of these improvements I managed in the form of action research. I also concerned as to whether pupils could do it all by themselves.

At the beginning I planned to familiarize pupils with some of the processes of data-gathering: questionnaires, interviews, rating-scales and a research-diary. I tried to achieve these aims through play and by engaging in interesting activities with them. Rating scales appeared to me easy and useful procedures but pupils seemed to have a problem in using them. They could not hypothesise or construct rating-scales. We managed to practice interviews, which the pupils coped with fairly easily:

> Yesterday pupils played at being journalists and interviewing. It was good: they liked interviewing. They devised interesting questions. We searched for the questions which have only one answer (closed questions) and those which allow us to say more (open questions)…This was a good preparation for the use of an interview in their action research inquiries. (M. Zovko, personal communication, December 18, 2003)

After familiarizing themselves with the procedures of data-gathering, pupils individually defined their values, and we then determined our shared values.

I carried out an activity with the pupils that we called 'The flowering of our values'. The children were first divided into groups of four. They wrote down their individual values on

the petals and in the centre of the flower they put their shared values. On the petals we wrote down values of particular groups and then in the middle we mentioned the shared values of the whole class. For example, on some flowers pupils mentioned freedom, play, love, learning, friendship, peace, parents, family togetherness. Pavle wrote the only important thing for him was that his mother, who three years ago had found out she had cancer, stayed alive. If I had not been there I don't believe the pupils would have come up with all the ideas they ended up writing in the petals by themselves. At the end, in the middle of the class's flower, they wrote the following values: FRIENDSHIP in the classroom; and FUN AND ENTERTAINMENT, FAMILY – health, understanding, trust, support. (M. Zovko, personal communication, January 19, 2004)
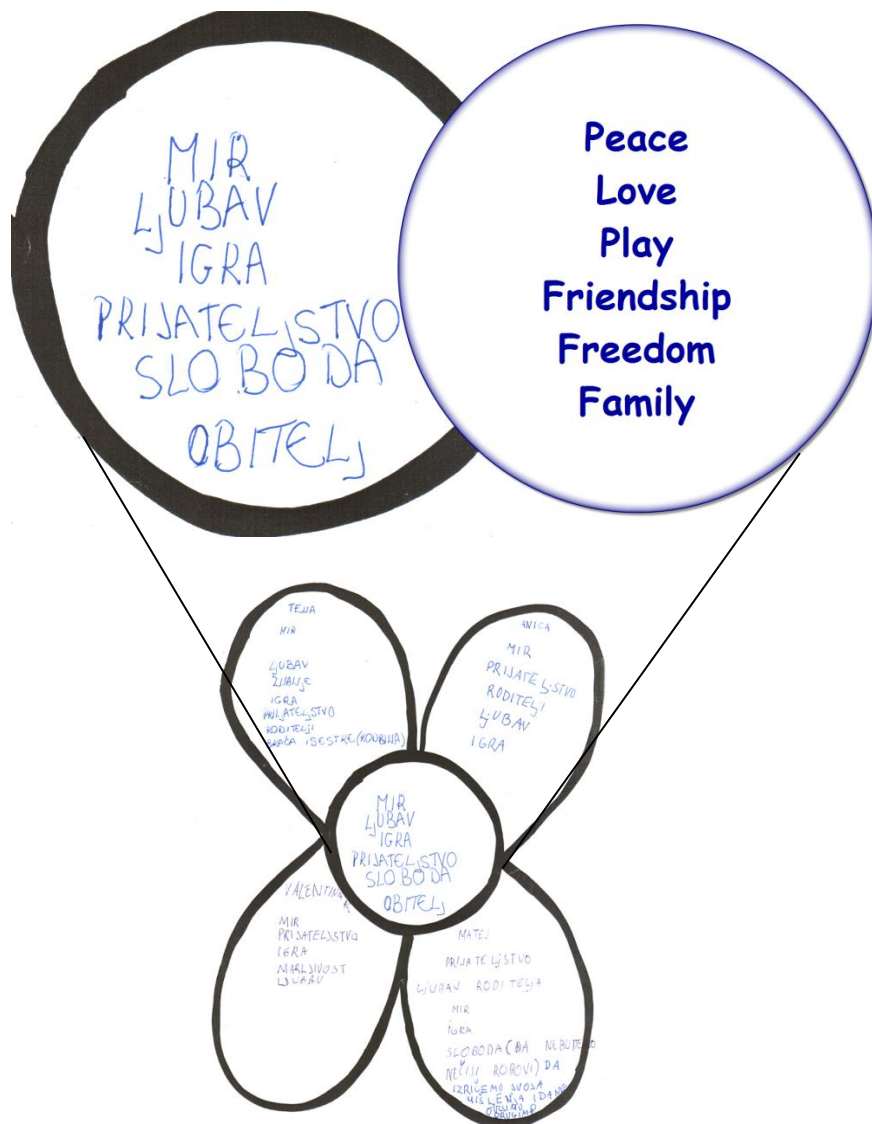
Figure 3.   An example of the pupils' values-flower

We discussed how they might do something to improve some of their values. I left them enough time to think about it and the next day several pupils presented their ideas:

Ana: I'll make all my friends happy. We'll play together and have fun and all of us will be cheerful and satisfied. In school we need more play and fun since children don't have enough fun at home[7].

Anica: I'll try to understand my family: my sister needs a bit of peace, mum needs help when she can't find time to do the dishes; I'll be there for dad to do some job, help grandmother and aunt in cleaning, listen to my little sister etc. To check the efficiency I'll use questionnaires, interviews and certificates[8] of action[9]. (Pupils' research diaries)

When pupils first read the plans of their actions, I explained to them the concept of an action research inquiry. I told them that in action research they would be able to improve something important according to the values they wrote down on the class's flower. They could make a plan about how to achieve their aims; they could gather data, discuss everything with other people and at the end present what they had done. We did not bother too much with an explanation of concepts since for the children it was more important to *do*, than know what it was called. In spite of that they accepted the concept of 'action research' very quickly as a means to their own ends.

Despite mostly positive attitudes, some pupils did not make plans. This situation reminded me very strongly of us when we started our action research inquiries. We also found it much easier to talk about ideas and about what we could do rather than write something about it. After a week I explained to the pupils that they did not have to carry on if they did not want to. I think some pupils were hesitant to say openly they were not enjoying it or that they did not know how to participate. Only a few of them decided not to participate in action research. At the end of the first week most pupils wrote down their individual plans.

These children were very interested and individually they came out with more and more ideas about what to do. They were full of questions and they seemed happy as their new ideas emerged during our discussions. I wrote in my research-diary that previously-developed social competences and trusting relationships appeared to be important in that phase of my action research. Branko noted that in action research such activities could exceed the limits of traditional classrooms in which children were largely passive. In order for pupils to be able to engage fully with an action research inquiry, it was necessary to free up their sense of independence, critical thinking and creativity.

---

[7]   Ana suggested a general plan without too many concrete details. Later I noticed that she improvised activities in the classroom everyday or she devised them a day beforehand and then conducted them successfully. Although she revised her plan later, she was as satisfied as the other children. She planned amusing activities according to her interests and carried them out with other children. She later cooperated with Lucija.

[8]   The Certificate represents parents' or somebody else's signature when some activity was successfully completed.

[9]   Anica outlined an activity to show her understanding to each member of the family. She devised clear activities on how to improve understandings within the family. She regularly kept a diary and acted according to the plan. In the classroom she conducted critical analyses of her work. She finished her action research inquiry and wrote a report. She concluded that such work took her a lot of time, but she was satisfied with her self-improvement. In the second cycle she tried to organise activities in which pupils could discuss their problems.

In the beginning I helped the pupils with their inquiries by myself, and later this was done by the more involved pupils. My role appeared to be most important in communication with pupils who had lost confidence in their abilities or had some sort of crisis.

Today the first crisis occurred. Everybody had something planned and some of them started to put their plans into practice. In the process Ana and Lucija were particularly active in making up amusing plays which were part of their action plan. Ana coped in an excellent manner with the role of organiser of amusing plays in the classroom. Other children enjoyed what they were doing and tried to contribute to their plans. However, some pupils were less confident and they decided to stop participating. When they read out their plans I asked them what the problem was and they did not know. I think that the crisis emerged since it seemed to them that they wouldn't realise their research as well as Ana and Lucija who conducted their plans with confidence and in doing so they were enjoying themselves as much as the other children.

Probably many pupils pass through a phase of worry that it is impossible to change and improve something. Stoll and Fink (2000) also write about such a problem with teachers. I concluded earlier that a similar process occurs in action research with adults as well as action research with children. (M. Zovko, personal communication, January 23, 2004)

Our day started with a conversation about action research. Each pupil who had something to share with us was allowed to say something. Other pupils, even those who did not complete their action research, listened to them with interest and respect. I respected the choice of those pupils who gave up doing action research, although some of them claimed they had been doing action research right up to the end of the research-period. They had not actually done this, but I did not contradict them. After the morning meeting we arranged further activities and tried to find the best solutions for implementing the pupils' suggestions and my duties. I tried to avoid burdening myself with my routine schedules, but I couldn't completely neglect the official curriculum and my regular obligations.

There was a lack of time but the children were tireless. When we had finished the part connected with action research (usually during the first two lunch hours), pupils had many ideas about what we could do 'from the lessons' as they used to say. They often stayed in the school after lessons were finished and sometimes I had actually to send them home since another teaching-shift had to start.

Pupils sometimes arrived full of ideas about their actions and about gathering data. They talked about interviews with members of their families, or with their classmates. The more active pupils kept research diaries. Through their action research they tried to improve the following aspects of their lives: *play and fun, family relationships, solving a conflict* and *friendship*. It is interesting that no one chose to improve their own learning of subjects. Valentina K. who decided to improve relationships in her family made a plan and kept notes in her research-diary:

I chose my family. Why did I do this? I did this because I wanted my parents, sister and brother to notice that I'd changed myself.

Plan:

I'll help with the house work.

I'll always be supportive of learning and other things.

I'll be full of understanding.

When they're ill, I'll nurse them.

I'll start from tomorrow.

Research-diary:

I did the dishes, wiped the dust, swept the floor, and encouraged my sister before she went to driving-school. Mum complained and I understood why: she was tired and she has a big job.

I arranged the crockery in one of our cabinets, swept the floor, and washed up the plates, tidied up the dishes and in the process broke a glass; mum did not shout. I prepared the tea.

Questions for mum:

Valentina: Did you notice that I changed because I did the cleaning?

Mum: Yes, it really happened!

Valentina: How did you feel?

Mum: Surprised.

Valentina: Were you pleased?

Mum: Certainly.

Valentina: Would you like it to stay like this forever?

Mum: Yes. (M. Zovko, personal communication, January 31, 2004)

In this action research project I needed the support of critical friends almost as much as I did at the beginning. 'I didn't expect to because I'd already completed my action research. And it indicates something important about this process and the necessity for a critical friend regardless of experience' (M. Zovko, personal communication, January 22, 2004). Branko and Vesna Šimić (a teacher in Branko's school) sent me their comments. Their opinions and support were very important to me:

Marica, your action research is in full flow. I have the impression that in your classroom everything buzzes about like bees in a hive and this is without any doubt good. (M. Bognar, personal communication, January 24, 2004)

Marica, your actions are increasingly clear to me. Bravo! I especially like the way you and your pupils recognise how you're 'forging ahead and making progress' in the work. (V. Šimić, personal communication, January 24, 2004)

In spite of previous experiences in action research, I felt uncertain. Probably part of my uncertainty emerged from the feeling that I still did not know enough about action research, and also because of the fact that the processes of our intensive inquiries were increasingly dissimilar to regular lessons.

I feel a chronic lack of time, because what the students are dealing with requires time; I also have to fulfil the official curriculum. I personally consider these activities to be very important, and probably more so for pupils' development than expressive reading, but I'm worried because of the continuous improvisation. It's only the thought that other teacher-

action-researchers face the same worries that consoles me. I still have to write in one way, and do something else. Very often I act on two different levels, like dealing with two jobs. Perhaps this will continue to happen until action research becomes part of the official curriculum. Maybe it's one of the reasons why teachers hardly ever work with action research as doing anything additional is not officially recognised and therefore not important despite their own personal beliefs and experiences. (M. Zovko, personal communication, February 3, 2004)

I wonder why we as teachers so often devote detailed planning to what we think should be done, when children seem actually much more interested in planning by themselves. However, just as I needed the support of critical friends so did my pupils. Children who were active from the beginning became critical friends to their classmates. They suggested to each other how to improve their activities. Several pupils visited the homes of pupils carrying out their research with their families.

> Today, Valentina K. informed us about the processes of her action research. She was visited by her critical friend Tena. Tena wrote her opinion about Valentina's work. Valentina was not satisfied, however, because Tena was shy and she didn't talk with members of her family about the improvements Valentina was trying to make. Tena noticed that Valentina regularly kept a diary and that her plan and records matched each other and she commended her for this. Valentina, as a researcher, thought that Tena should also notice more about how she acted and not only how she kept a diary. Valentina K. is generally very active and she was enjoying her action research. (M. Zovko, personal communication, February 4, 2004)

After two weeks pupils doing action research decided to perform critical analyses of the completed work. I did not have to explain to them how to organise it since Anica – who became a real expert in action research – did it for me. We made an agreement that at the end of each school day we would each analyse one or two pieces of research. Tena's was first. She presented her action research and Valentina K. commented that from Tena's records it wasn't completely clear what she had intended to achieve. Tena agreed with her and added she had noticed that earlier too! I observed that she did not achieve her planned activities over the three days stipulated and I told her so. Children very soon realised what it meant to be a critical friend and they tolerated praise as well as criticism. It was lovely to see them feeling empowered. My presence and comments were very significant in this situation:

> I always point out important things, always praise them, because there is always something to be praised and I soften any negative comments. In this phase it is very important that children feel empowered and positive after any discussion about their inquiries. It is very important to reveal one's own thoughts and experiences to others, but it is equally important to hear what they think about them. In the first phase, when children are learning to be action researchers, criteria tend to be lenient. Even if the children didn't complete their own action research, the process they participated in was still extremely valuable, since there seemed no better way for developing self-confidence other than from this kind of process of action research (M. Zovko, personal communication, February 4, 2004).

After critical analyses some pupils were satisfied with their action research and improvements, and some planned what to do next within their elected research-fields. It was at this stage that I acquainted pupils with reports and helped them in how to make

them for themselves. The children wrote down everything about their action research and presented it to classmates on the big paper (Figure 4).
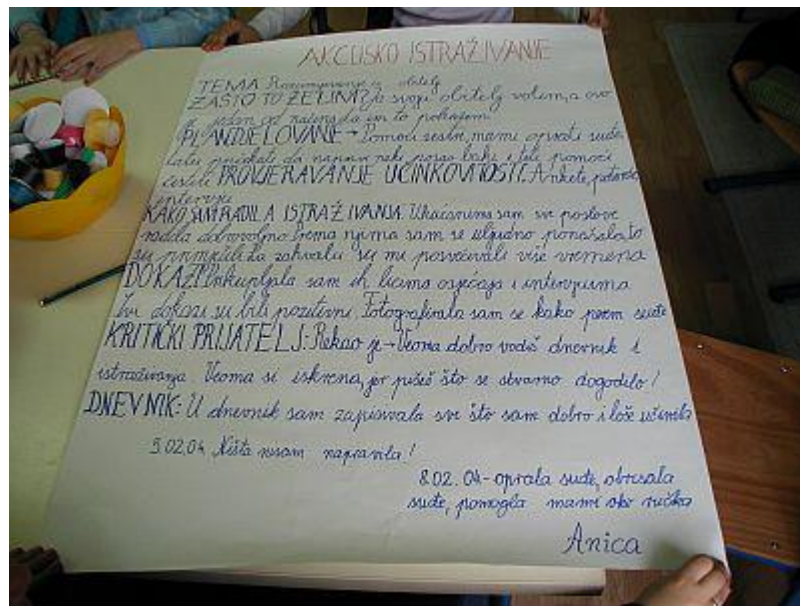

Figure 4.   An example of a pupil's report

I helped pupils to validate their action research without too much explanation of the term. I utilized Jack Whitehead's[10] (1989) approach by raising the following questions:

- o   Was the inquiry carried out in a systematic way?
- o   Did the pupils try to fulfil their own values?
- o   Is their explanation understandable to others?
- o   Do they have evidence for their actions?
- o   Why are their improvements significant?

After three months of doing action research we all felt tired. It was a sign for us to finish our project, but that did not mean the children stopped their activities.

---

[10]   The questions I asked myself in judging the validity of the claim include:

a) Was the inquiry carried out in a systematic way?

b) Are the values used to distinguish the claim to knowledge as educational knowledge clearly shown and justified?

c) Does the claim contain evidence of a critical accommodation of propositional contributions from the traditional disciplines of education?

d) Are the assertions made in the claim clearly justified?

e) Is there evidence of an enquiring and critical approach to an educational problem? (Whitehead, 1989, p. 6)

Yesterday pupils who were active from the beginning told me they were very tired and that they couldn't achieve anything further, so they didn't want to continue with action research, but they wanted to carry out parts of their plans. It is not difficult for them to carry on, but it is a problem to monitor everything and to gather evidence. I remember such a feeling too. I also feel less of a burden now as I'm not engaged with the pupils' action research on an everyday basis. (M. Zovko, personal communication, February 27, 2004)

When pupils had had enough experience in action research I asked them to write down what they first thought of when I told them that we were going to do action research. Pupils initially thought they might gather data about ancient Egypt; they might inquire about forest plants and animals, make experiments in the laboratory; that perhaps it was some new game, something done for a final grade; that somebody might question them. Three pupils thought it would be stupid, difficult and boring. Almost all the students expressed positive attitudes towards action research since they had achieved self-improvement, as well as helping and understanding families and friends.

What pupils considered positive in their action research I found out by using questionnaire:

- I like helping others, improving myself, and keeping a research-diary.
- The family gave me more time during the research. I liked it when they praised me and noticed I was working.
- This is good because we have fun, improve and even learn through action research.
- That I can improve relationships in my family, friendship and play.
- I liked working to improve something.
- I liked helping my family.
- I consider it is very good. I liked being very active, helping my family, and I wanted to do this because it suits me.
- To prove that in life something can always be improved.
- I liked it when we did things and wrote about changes.
- Each human being should do action research. In that way s(he) will get acquainted with herself/himself and found out that s(he) can be better.

What did child learn from their action research?

- That people can be different, that they can understand the family better. I've experienced lovely moments as well as bad ones.
- I brought a lot of happiness into the family because it made me happy when mum kissed me with a smile on her face; I learned that it is beautiful to improve something in the family.
- I learned that I could be closer to friends.
- That is possible to improve a lot when you want to.
- I learned many things - that friendship is good and that what seems boring can be interesting.
- I thought that I helped mum too much with housework, but when I was cooking lunch with mum during my action research, I realised that mum worked very hard. Since then whenever I can, I help mum, and much more than before.
- How to live better.

ii) How I helped Marica in her effort to help pupils to become fully-fledged action researchers – Branko's story

In September 2003 I invited four teachers – participants of the previous project – to continue our cooperation in order to manage several action research inquiries and publish them in a shared book. We made an agreement to communicate through the virtual space of cooperation[11] as well as through meetings on Saturdays. Participants individually defined the fields in which they wanted to continue with their action research, and I tried to help them. At the beginning Marica was not able easily to determine her concern because during the three-years of our cooperation she had already succeeded in making improvements to her practice and she did not know what else to improve. However, it seemed to her that she could focus on the development of pupils' critical thinking:

> In accordance with my values and the circumstances in which I work, it seemed to me a logical solution to choosing a field of critical thinking and I discussed that with Branko Bognar. Several years ago I participated in the project 'Reading and Writing for Critical Thinking.' I had some knowledge about critical thinking as a complex and multidimensional process and I had practised some teaching-techniques to contribute to pupils' development. My pupils have participated in such activities from the first grade and particular improvements became clear: they became much more confident when they presented their own opinions and showed their readiness to respect other people's opinions. I considered this could still be improved on through an action research inquiry. (Zovko, working version of her action research report)

After two months of skirting about the topic – critical thinking, which did not present a fundamental change as she had already developed it with pupils since the first grade – Marica presented her concern at a meeting of the action research group and after that I came up with the idea that the children would surely cope with the research by themselves as her plan had included everything she wanted to achieve: freedom, self-determined activities, self-confidence, critical thinking and the pupils' cooperation. Marica wrote about my idea in the following way:

> After yesterday's meeting I feel much better and more confident. Thanks Branko for another step in the development of action researchers in our team! Probably this is generalisable: in action research: if you do not know where and how to go forward, talk with critical friends. That is how I've felt recently: I've had crises and I've not been sure what to do with this critical thinking thing at all. I wrote as the title of my action research: 'How can I improve the critical thinking of my pupils?' and I thought it really would be possible to do what I was already doing. Such a perception hadn't satisfied me and I've not known how to do the research at all. Therefore the help of a critical friend is important. (M. Zovko, personal communication, December 7, 2003)

I responded to her immediately:

---

[11] The system for virtual cooperation consists of forums, archives, content-management tools and photo-albums. We received this system as a donation from a computer programmer who, over time, also became a member of our team.

Marica, I am glad that you like my idea about action research with students. This is a step forward but at the same time corresponds with your current educational practice. Namely, everything you've managed with your pupils can be integrated into your pupils' action research projects. Anyway, consider how to enable students in their data-gathering and action research inquiries as a whole. Most important to note is that we can learn action research only by doing. I am looking forward to seeing what will happen. (B. Bognar, personal communication, December 7, 2003)

With the aim of helping pupils take over the role of action researchers Marica started with activities, which they could learn how to construct and apply to various processes of data- gathering. She tried to achieve that through play. She also realised it was important to ask pupils whether they actually wanted to participate in action research:

Today it occurred to me that I should ask pupils whether they wanted to do action research. I didn't want just to be the only one giving suggestions; I wanted to allow those who wanted to, to lead the others. Anyway, I will respect the decisions of those pupils who choose not participate. What gives me the right to assume that everybody wants to do action research just because I suggest it!? (M. Zovko, personal communication, January 13, 2004)

I encouraged her in both intentions: 'It is excellent that you start from play and that you want to give the possibility of choice to the students,' (B. Bognar, personal communication, January 14, 2004). In spite of my sympathy with Marica's way of introducing pupils to action research, it seemed to me that she was placing too much emphasis on data-gathering and somewhat neglecting the development of pupils' understanding of the action research process as a whole process. I read her revised plan and wrote some suggestions:

Marica: Students will conduct their action research in small groups. They are likely to want to deal with improvements in their relationships. As I am learning to gather data, my pupils will learn to do it. Their questions and their concerns should be corroborated by data.

Branko: The processes of action research can be completed only if we know how. Therefore, pupils also need to learn something. You started with data-gathering, but it is also advisable that pupils learn the following about action research:

- [It] is about improving some field of our lives and this usually starts with question 'How can we improve…?'
- That in action research we start from particular values that can serve as the criteria for the assessment of the success of our actions;
- That a process of action research consists of planning, acting, data-gathering, critical consideration, revised planning etc.
- That in the realisation of our plan other people can help with their own suggestions and criticisms – we call such people critical friends;
- Gathered data needs to be distilled, sorted out, and finally analysed with the aim of making conclusions about the realisation of a particular plan;
- It is advisable to present the results of our action research publicly in the form of posters, reports, video-presentations, computer-presentations, photo-presentations, comic strips…
- Then we can invite other people (parents, pupils from other classes or schools…) to assess the comprehensibility, truth, candour and appropriateness of our presentations.

Maybe this could be the basic plan of your action research. How does it seem to you? Data-gathering is just one aspect of what pupils need to learn about action research. I am not sure at the moment whether it is necessary to explain it in advance or whether you should introduce pupils to action research step-by-step. What do you think?

Marica: I'm going to plan the process of my action research inquiry and at the same time I'll teach and help the pupils in the planning of their action research.

Branko: It is important that they determine what data they should gather. The same applies to you.

Marica: I changed my plan so that I won't start with research for the first week. Pupils will learn through play to decrease their anxiety.

Branko: Afterwards the pupils could write stories, fables, or fairy tales about three of their most important values. To describe their values they could draw or act out something. Pupils could be divided into groups according to their chosen values. The next step could be planning improvements of some part of their lives (inside or outside school) with the aim of fulfilling the highlighted values. Pupils need to choose what they want to do and to change. It is advisable to warn them to start small. (M. Zovko & B. Bognar, personal communication, January 14, 2004)

During that time, other than the communication through the forum at the Internet, we often talked on the telephone. During those conversations I tried to explain to Marica that the essence of action research is improving something in our everyday lives. Marica was beginning to realise that from the example of her pupils' initiative in deciding independently to establish a class library:

After my conversation with Branko again the light dawned. I told Branko that several pupils in my classroom were trying to establish a class library. They planned everything. They even knew why they were doing it and had ideas about possible improvements. Branko told me that it could be a small classroom action research project. When I discussed this with the pupils, I noticed that their work already contained elements of an action research inquiry. If Branko had not mentioned action research, I would never have recognised it in the activity of my pupils. Thanks to Branko for another idea! (M. Zovko, personal communication, January 15, 2004)

Pupils who had the initiative for establishing a class library easily accepted action research as a natural part of their lives. As a mentor Marica wrote:

I feel a bit awkward as a mentor to the pupil action researchers. I do not like theorising with them, but really I want to help them in their work. I have to confess that the children's approach to the research work is simpler and more spontaneous than ours (adults). To them everything is pretty straightforward.

My pupils Anica, Valentina and Tena and I discussed their attempts to establish a library today and we arranged for them to write down their ideas and plans by the next day. On questioning them about their reasons to do things in particular ways, they had clear answers: they knew what they wanted to improve. They had a plan of how to achieve everything. They even had an idea about how to get feedback from other pupils about working on the class library. They had a plan about how to motivate pupils to read. Like us they could make contacts in school, over the 'phone and through visits even though they are from different villages. They have assistants: parents and a teacher. My problem: This is pupils' action

research but how can it become my action research when I don't do anything? I am proud of my work up to now and of my class, but my current role is minimal. How can this be my action research? Even the idea of improving something is not mine, but the pupils.' (M. Zovko, personal communication, January 15, 2004)

I responded to Marica:

Marica, you asked how this can be your action research inquiry when you are doing nothing. Everything you mentioned about your pupils' project has elements of action research, but the missing link is the critical friend. What you say about critical friends and their role being necessary when someone gets stuck are details that aren't very visible. It's true that critical friends cannot take any lead in someone else's action research, but only in their own. Apart from may be that we actually do the most when our role is hardly perceptible at all. In a traditional school we're taught to take on the dominant role, although it's most effective when it's imperceptible. (B. Bognar, personal communication, January 16, 2004)

In spite of the feeling that she was surplus to requirements she came to realise that her role was very important. Her leadership and the activities she suggested were decisive for the development of the pupils' action research. Pupils were able to isolate their individual and shared values through activities called 'The flowering of our values'. After that the pupils talked about ways to fulfil the highlighted values in their lives:

Pupils quickly listed ideas and we made an agreement that for a day we would consider everything and try to find ways of making improvements in accordance with their values. One pupil asked me after some reflection what would happen if she made a plan and acted in accordance with it, but there were no improvements or others didn't recognise them. It seems she must have read Jean McNiff and Jack Whitehead's (2002) text which Branko translated for us: 'Making sense of what happens when things do not go according to plan is just as much part of an action inquiry as when they do. The research is in education, whether the action goes as we hope or not. The learning is in the practice' (p. 71). I told pupils that I would help them in devising and achieving their plans as well as in monitoring and data-gathering. (M. Zovko, personal communication, January 19, 2004)

I noticed with pleasure a significant change in Marica's actions which were in accordance with her intention to help pupils fulfil their action research:

Marica, this is excellent. I feel you go in the heart of the thing – the realisation of your own action research. After this period of reflection, reconnaissance and reading I feel that things have settled down and now the most important phase of action research begins – the action. There will be ups and downs, planned achievements, unplanned surprises, but in that all lies the beauty of action research inquiries – their openness to a life that is rich and unbounded.

Your action research is not the result of just a current plan, but a reflection of the results of your overall educational endeavour. Nothing of what you experience now as so thrilling would have happened if you hadn't managed particular aspects. All of this could help you in making a new plan, whose aim is introducing action research to the pupils' real worlds.

My sincere congratulations to you and to your young action researchers. I am happy in your enthusiasm, openness and readiness for action research. (B. Bognar, personal communication, January 19, 2004)

As well as me, Teacher Vesna Šimić noticed changes in Marica's research:

> Marica, I looked at the virtual space of cooperation which connects and links us again …I am glad that your pupils have an opportunity and the freedom to express their values worked through with their experiences and needs. If we succeed in promoting the highlighted values with our pupils, we will surely achieve some small improvements in our practice. (V. Šimić, personal communication, January 19, 2004)

Despite the pupils' initial enthusiasm Marica noticed that the majority of them did not complete their action research plans. This fact did not disappoint or even surprise her. She was aware that it was a new field for children and it seemed that some pupils might see it as a form of homework:

> Altogether I am not disappointed, since this was anticipated from the beginning. For the children this is a new field, and I believe that some pupils perceive it as a sort of voluntary homework so they didn't do it.

> It was good that I knew this beforehand because I was able to react appropriately and to plan subsequent activities. I didn't show any negative feelings to the children because I didn't feel them. Through this it becomes clear that the dynamic relationships we've developed, together with my suggestions that must have enthused them, are very important. Today I've also noticed the importance of the mutual trust we have developed. (M. Zovko, personal communication, January 20, 2004)

I encouraged Marica in her detailed, regular and public diary-writing so it was easy to discern what had happened in her classroom:

> Marica, I like this way of keeping a diary because it's sufficiently detailed to enable us to discern important processes occurring in our research and since it is public everybody can learn something, and at the same time write their own comments. (B. Bognar, personal communication, January 21, 2004)

To me it was particularly important because I then had a complete and up-to-date insight into the significant processes for carrying out her action research inquiry. Problems emerging in relation to the pupils' action research plans once more made me emphasise to her that:

> …without doubt it would not be good for pupils to view action research as some kind of homework; on the contrary it should be an expression of their own wish to participate in action research and they should be empowered to do it. (B. Bognar, personal communication, January 21, 2004)

Marica told me my words of support were important to her and she continued to keep a diary about events in her class:

> Cooperative relationships prevail among the children; all the time they are making arrangements and proposing things. My regular or orthodox teaching plan was achieved only after their action research activities. Regular lessons according to the official schedule were not fully completed, but the children were not worried. They had practical solutions about how to compensate for the lost subject-matter.

This class is accustomed to planning, making proposals and being independent. I already noticed in previous years that children become more active and satisfied if they are able to deal with activities that transcend the teaching curriculum and which enable the development of particular competences. For me the problem always emerges when I have to square academic subjects in the official curriculum with what I actually do, since at the end of the school-year the completion of my curriculum has to be at the same level as the other teachers', although my pupils were enriched by other possibilities.

After this sort of work I feel exhausted. I have tried listening to each child and helping them with their action research planning. Children felt important and cheerful after my constructive comments and suggestions, as we feel in our action research with Branko as our critical friend. (M. Zovko, personal communication, January 21, 2004)

I shared Marica and her pupils' vitality and commitment to their action research inquiries, but I noticed that she was worried because of her inability to complete the official curriculum. I wrote to her with the following suggestion:

I am aware that you can hardly harmonise an old system in a new way. It's happening to Vesna too at the moment. I mean that new ideas cannot be fitted into an old mould, but it isn't actually necessary. As you mentioned, your children won't know any less than the other children, but they will be enriched by an experience other pupils will probably not get during their entire schooling. (B. Bognar, personal communication, January 22, 2004)

Apart from my comments Marica needed:

… additional stimulating literature. I went through my theoretical understanding from the literature again, particularly those relating to the context of my actions. My notes from books make me more confident. It seems to me that I am actually more confused than I am happy telling you about. On the one hand I have to deal with an external framework in which there no place for the work we do, and on the other hand there is my system of values grounded in previous work and education – it all confuses me, and makes me unconfident. I need theoretical confirmation for my current actions although I've often introduced innovations in the past. I feel better if I have the support of literature for my practice, and this time it was particularly noticeable. Maybe I would like to reassure myself since I know that this way of working is not official school practice. I am aware that these are normal feelings in the context of a traditional school. (M. Zovko, personal communication, January 22, 2004)

Despite the fact that she did not have any special support other than mine, Marica continued to help her pupils in the realisation of their action research inquiries. I conducted group interviews with pupils trying to check if they truly understood the process of action research:

Branko: Would it be possible if you needed to explain to, let's say teacher Vesna's students, what action research is, how would you, in the most simple way, explain this to them? So, would you like to tell us?

Tomislav: Well it is research in which you want to, I don't know, research or improve something, something in your life, it doesn't have to be in your life, you just want to find out something about it.

Branko: Good. Go ahead. How would you explain it?

Anica: It is improving something important in your life.

Branko: Good. And how, if they were to ask, how are you going about this research now?

Anica: I make a plan and decide that according to the plan I will try to improve it.

Branko: And how do you know if you have improved something?

Valentina B.: Well somebody can confirm it through an interview. To question somebody whether it has improved. Or record it on tape.

Branko: Good.

Video 3.   [Pupil action researchers](Bognar, 2008a)

Tina: Simply find a critical friend, develop a questionnaire or an interview… I mean, have him watch.

Branko: You just said a critical friend. What do you mean by a critical friend?

Valentina: I already said that he tells you what you haven't done too well, what you can do better, not just praise you: 'Oh that's great, oh that's wonderful'.

Branko: Good. Go ahead. Did you want to say something?

Ana: A critical friend is always with you and he will always give you [ideas], tell you what is missing or what not to do and what to do, he always says…

Tomislav: It's a friend who gives you advice about the things you didn't do right in your plan and the things that you did and what you could improve.

Branko: Good. Thank you. Did somebody else want to say something?

Branko: Well, tell me are you, when somebody tells you… for instance someone tells you that something is not good, that you didn't do something right, gives you some kind of remark, criticism, how do you feel? Are you angry with your critical friend or are you glad that he said that to you?

Ana: No, because if there was something missing, he was supposed to tell me because I chose him to tell me such things.

Branko: Go ahead. Did you want to say something?

Marsel: Well, I am glad that he tells me that because we have to know something about ourselves as well, to gather some information.

Branko: Good. Did you want to say something?

Marijana: Well, I don't get angry if he tells me something's wrong. I don't get angry about that.

Branko: Is there anybody who didn't feel too comfortable?

Valentina: Me. I mean, to me, when they say it, I feel sort of regretful, but I still take it because I know that sometimes I have to face consequences in life.

Branko: Good. And tell me, when you finish with a certain part of your performance, your activities and when you complete your own plan, what do you do after that?

Anica: Start with new plans.

Branko: How do you start with a new plan?

Anica: Well the same way we did with the first one. I'll make a plan and start researching again.

Branko: Will it be related to what you have previously done or will it be something completely different?

Anica: It can be completely different or it can be something similar.

Branko: If it is related to your previous work, how will you previous work helps you?

Anica: Well it'll help with the plan. The way I did it, the way my family reacted, that way I'll be able to see how I will develop my plan, how I can act. (Bognar, 2004a)

On the basis of conversation with pupils as well as from Marica's detailed research-diary I realised that pupils understood that action research included the following aspects:

- Improving something important in their lives;

- Processes consisting of planning, carrying out, data-gathering and critical analyses,

- Cooperation with critical friends whose critical suggestions help in carrying out the research.

However, at that time the pupils were not accustomed to doing an action research report and going through the processes of validation. I suggested that Marica pay particular attention to this aspect of action research:

From the conversation it seems that the children understand action research very well up to the parts relating to reporting and validation. It would be good if you read the section in my MA dissertation devoted to writing a report and the processes of validation again. If you want we can talk about it. Afterwards it would be good to consider how to bring [these processes] closer to children.

You could fit the writing of reports into lessons about the Croatian language, e.g. written exercises. As regards validation, maybe Vesna's or Daniela's pupils could be the validation group and help you in the assessment of the success of your action researchers' work. (B. Bognar, personal communication, February 10, 2004)

Several pupils succeeded in writing reports and I made an agreement with Vesna Šimić to have the validation process in her classroom. Marica took four students in her car to Vesna's school in Klakar where they presented their action research inquiries. Vesna's pupils listened to Marica's pupils attentively, asked questions and then rewarded them with spontaneous applause. As shown in Video 4 and Figure 5 it's possible to see that Marica's pupils had prepared written reports in the form of posters on big sheets of paper and with my support they fulfilled the validation aspects of their action research. Later Marica repeated this procedure in her classroom and helped pupils to gain control over the whole process of action research.

Video 4. Validation of a pupil's action research report (Bognar, 2008d)

During the process of our research I started working with action researchers at an international level. Cooperation was enabled through an e-mail list, established and led by JeKan Adler-Collins, Associate Professor of Nursing at Fukuoka Prefectural University in Japan**,** and Jack Whitehead, Lecturer in Education at the University of Bath in UK. I sent the transcript of my conversation with pupil action researchers to this list. Several participants on the list replied very quickly and asked me to publish a video of this conversation. Because of technical problems (slow Internet connection, lack of the space at the Internet) I was not able to do it at that time. But one year later I published videos from our research with subtitles in English during the BERA Practitioners-Research SIG e-seminar. Moira Laidlaw, at that time a volunteer with Voluntary Services Overseas (VSO) was particularly impressed by the videos and wrote a detailed review about the video with my conversation with pupil

action researchers. She particularly pointed out the pupils' freedom to choose whether or not they participated in action research:

> And here's the essence for me. A moment of genius. You are 'walking the talk'. In other words you are not only genuinely allowing the students to opt out, but you are enabling them to understand the educational significance of that action, in fact commending their choice because it comes as a conscious, responsible one. This relates so strongly to that moment before in terms of what I was saying about the dialectic between responsibility and freedom. And by describing it so respectfully, I sense no worry on the part of the pupils themselves at being different from those who chose to do AR. They account for their reasons as confidently, it seems to me, as those like Anica, who's done such sterling AR work! I think if pupils can tell the truth to power (sorry, can't remember the reference) then there's something so powerful going on here. So often in society (I'm talking about mine here in the UK and not yours, because I don't know) power is more significant and holds greater sway than truth. I am thinking of a national curriculum, which divides knowledge into segments and then sets the values around it like a constellation. And this, is the implied meaning, is truth! Mm. I don't think so! Your classroom, Teacher Marica's classroom, stands as a beacon of hope in enlightenment, empowerment, change and challenge, as well as respect, love, delight, intellectual stimulation, and emotional kindness... (Laidlaw, 2005)

f) Interpretation

Despite the fact that action research is becoming a growing trend in teachers' practices, at the beginning of our project we were faced with a lack of literature about pupils' action research. From the accounts available to us we were able to conclude that pupils could become action researchers, but we lacked any accounts by teachers who had also tried to help younger pupils to become action researchers. This is a problem because the literature about action research for adult researchers is not adequate for teachers intending to help pupils to become action fully-fledged researchers themselves. In our case the pupils were introduced to data-gathering through a form of play and with various stimulating activities. On the other hand, Niamh O'Brien and Tina Moules (2007) organised, 'training in interview skills carried out through the use of role-play' (p. 393). Other than that, pupil action researchers gathered data during the fun-day when all the researchers were dressed in fancy dress:

> Throughout this day, which included face painting, t-shirt, bag design and art work, the young researchers gathered data from children and young people via the use of interviews, questionnaires and various creative methods such as a graffiti wall, comments box and a diary room. (ibid. p. 394)

In organizing appropriate activities for novice pupil action researchers, the creativity of teachers as well as children was able to emerge. Daily teaching practices – stimulating pupils' independence, confidence, creativity, critical thinking, and social competences as well as giving them enough space for play, and experimentation with various freely-elected activities – were able to contribute to put down fertile roots from which young action researchers could learn. We also think it a necessary precondition that a teacher, before deciding to help pupils to become full-blown action researchers, should undertake several

teacher action research projects themselves. In that way, a teacher and the pupils will become acquainted with the processes of action research that could later make it easier for the pupils to become fully-fledged action researchers themselves.

Video 5.   Approaching a school-based, child-oriented classroom with Marica (Bognar, 2008f)

However, the most important precondition for pupils' active participation in child-centred action research has to be the child-centred school. In traditional schools where the most important prerequisite is the implementation of official curricula, pupils' action research isn't going to find its own place (see Table 1). We consider our previous efforts in creating a school-environment oriented to children (see Video 5) (which were themselves a part of our own action research projects) were decisive for the success of pupils as action researchers.

Marica considered it important to start from the point of enabling pupils to gather data. This is without doubt an important precondition for any research, let alone pupils' action research. This form of research must not be reduced merely to data-gathering because it represents much more than that (Kemmis & McTaggart, 2005, p. 568). As Anica expressed it beautifully, action research is first of all about 'improving something important in your life.' Therefore, we sought ways to help pupils become fully-fledged action researchers, not only research-advisers, data-gatherers and co-interpreters of data as was the case in the ethnographic research conducted by Ruth Leitch et al. (2007, p. 463).

Table 1.   Our understanding of differences between the traditional and the child-centred school

The traditional school	The child-centred School
The purpose of a traditional school lies in the training of pupils to fit into traditional social patterns, power relationships and as a preparation for their participation in economic production, in which the main aim is an increase in material wealth. In such a school teachers undertake the fulfilment of those values defined and determined by external forces, and not instigated by the participants of the teaching processes themselves.	The purpose of a child-centred school is the development of the creative/productive potentials that revitalise the culture of previous generations as well as promoting development. The main aim of such a school is the self-production of, 'the wealthy man and the plenitude of human need. The wealthy man is at the same time one who needs a complex of human manifestations of life, and whose own self-realization exists as an inner necessity, a need' (Marx, 1961, p. 137). Education is grounded on values that are autonomously chosen by its participants – students, teachers, parents etc.
Teaching is organised on the basis of official curricula that are always planned in advance and in detail by teachers whose main task is the transmission of the knowledge of different academic subjects to their students.	Teachers respect the needs and individual abilities of pupils who are also deemed sufficiently capable and responsible to participate in curriculum-planning. The teaching process starts from a democratically-agreed premise, which is perceptible to all the participants of the educational processes.
To fulfil the official curricula the most responsible and significant person is the teacher. The teacher devises teaching-activities with the aim of informing pupils about official truths and to develop some officially-desired skills.	Pupils as well as teachers are responsible for the achievement of planned activities. The main aim of learning is the ability to learn in self-directed ways that can take control of any essential changes.
The evaluation of learning is carried out by teachers and external official bodies, that determine the criteria and methods of assessment and grading.	Pupils and teachers participate equally in self-evaluation in which the intention is to gauge the achievement of self-chosen concerns and the results of learning.

It is interesting that in their own research the pupils did not decide to improve learning within any of their school subjects. This gives us a clear message about how important such learning was for them. Other than that, in the research conducted by Ros Frost (2007) seven and eight year-old pupils asked research questions that had an epistemological slant:

> The children chose to undertake research into why a shed they enjoyed playing around had been taken away, why people appeared to care more about football than saving trees from

being cut down, how God was made, why humans were cruel to animals and why people smoke. (ibid., p. 447)

The purpose of those questions was not to improve or change some important aspect of the children's everyday lives, but instead an expression of the pupils' natural curiosity and in some measure their critical thinking. On the other hand, our pupils – the participants in our action research programme – raised obvious questions as an attempt to change something. This revealed them to be in accordance with their own autonomously-determined values. We consider that such a difference occurred because of the influence of the adults whose understanding of action research processes had an effect on the pupils' selection of research-questions. Although Frost expressed her concern that she 'was manipulating pupils into yet another adult agenda albeit one that had the express intention of empowering them in the future' (ibid., p. 446), it could not save her from the influence she had on pupils. On the other hand we weren't concerned about our influence, but we were aware of the responsibility this influence could signify. While we were helping pupils to carry out their action research inquiries we made efforts to respect their freedom and to support their creativity within the model of action research we personally believed in. This could clearly be interpreted as manipulation, but we are more inclined to call this, 'realness', 'genuineness' or 'congruence' in the facilitator of learning:

> When the facilitator is a real person, being what he or she is, entering into relationships with the learners without presenting a front or a façade, the facilitator is much more likely to be effective. This means that the feelings that the facilitator is experiencing are available to his or her awareness, that he or she is able to live these feelings, to be them, and able to communicate them if appropriate. It means that the facilitator comes into a direct, personal encounter with the learners, meeting each of them on a person-to-person basis. It means that the facilitator is being, not denying himself of herself. The facilitator is present to the students. (Rogers, 1980, p. 271)

In terms of our action research being conducted in a school in which the main task was pupils' learning, it is important to explain what connection exists between action research and learning. Our explanation is pretty simple: since action research represents a process of learning (see McNiff & Whitehead, 2006, p. 7; Kemmis & McTaggart, 2005, p. 563; Winter & Munn-Giddings, 2001, p. 21) we consider its place in a school to be central to all the educational processes regardless of the pupils' age. As far as our own value-orientation is concerned, our approach was grounded on humanistic theories of learning, the sort that were elaborated by Carl Rogers (1969):

1) '*Human beings have a natural potential for learning.*' (ibid., p. 157)

Although the processes of action research are not simple and require a lot of effort, pupils accept it as an integral part of their lives. The pupils were delighted and engaged happily in their own action research inquiries in such ways that might suggest their action research had been achieved without any support from teachers, but this is far from true. Action research is a process of learning in which pupils go beyond their current abilities. In this process a teacher's role is crucial since the cultural development of higher functions, particularly scientific thought, can only be realised within educational processes in which important interactions take place between pupils and a teacher. For an understanding of

such processes of learning, an important role is what Vygotsky called 'the zone of proximal development', that describes the influence of adults on the learning of children. The difference between the learning achieved alone and the learning only achievable with the help of adults represents the zone of proximal development (Vygotsky, 1993, p. 53). It means that learning and development do not completely match correlate. Learning is more successful when it exceeds the actual level of development. In that way a series of functions is enabled that cannot be developed on their own. Vygotsky (ibid., p. 57) emphasized that learning can occur only in activities that have specific cultural meaning and only when a child interacts with people in their own environment - in cooperation with their peers. In order to help pupils to develop their creative potentials: 'the best stimulus … is to organize their life and environment so that it leads to the need and ability to create' (Vygotsky, 2004, p. 66).

Therefore, Marica presented her pupils with a challenge that went beyond their abilities at that time, and in that way action research became a real educational opportunity for pupils. Because of the eagerness with which pupils responded to this challenge it sometimes seemed to Marica that her role was superfluous, but that was just an illusion. The teacher's role is the most influential when it is imperceptible, when it does not hamper pupils' enthusiasm and creativity. That Marica's role was decisive is shown by the fact that none of the pupils continued to undertake action research inquiries when they passed on to higher educational levels. Action research, therefore, represents the pupils' potential when the learning does not only take place by itself but with the benefit of teachers well qualified to enable its success, and who recognise and appreciate its educational importance.

2) '*Significant learning takes place when the subject matter is perceived by the student as having relevance for his own purposes.*' (Rogers, 1969, p. 158)

We consider this characteristic as particularly important for the processes of learning that occurred during the pupils' action research. That is to say in their inquiries pupils did not deal with other people's problems but their own, problems that emerged from their self-chosen values. Without the pupils' independent determination of their own problems, or better still, challenges (which presume an improvement of some important living situation) we wouldn't really be talking about pupils' action research as well as progressive and democratic education (John Dewey, 1921). By using the following questions, Dewey clearly differentiated between formal problems that pupils solved in order to achieve high marks and those problems that are connected to their own interests:

(a) Is there anything but a problem? Does the question naturally suggest itself within some situation of personal experience? Or is it an aloof thing, a problem only for the purposes of conveying instruction in some school topic? Is it the sort of trying that would arouse observation and engage experimentation outside of school? (b) Is it the pupil's own problem, or is it the teacher's or textbook's problem, made a problem for the pupil only because he cannot get the required mark or be promoted or win the teacher's approval, unless he deals with it? (Dewey, 1921, p. 182)

3) '*Learning which involves a change in self-organization – in the perception of oneself – is threatening and tends to be resisted.*' (Rogers, 1969, p. 159)

This feature was very important for the processes of learning by the adult participants in this project – particularly Marica who was painfully aware that pupils' action

research represented a fundamental deviation from the prevailing practices of other teachers. This fear was certainly not baseless, since accepting child-centeredness as a value at the same time meant rejecting the values of traditional schools. The decision to start this action research inquiry required a certain level of courage, as we were aware that our professional positions and development depended on people of higher professional rank who were not required to look kindly on our efforts. Unfortunately, such fears turned out to be well-founded since Marica's request for professional promotion recently was turned down despite her clear educational achievements.

4) *'Those learnings which are threatening to the self are more easily perceived and assimilated when external threats are at a minimum.'* (ibid.)

Marica tried to promote a safe atmosphere within which pupils could overcome problems and insecurities during the realisation of their action research inquiries, by constantly praising them and emphasising successful results, and by curtailing any of the students' negative comments. As well as that, Branko's support and the support of other teacher action researchers with whom we co-operated, helped Marica to overcome her doubts and fears. Branko received support from people who live abroad (e.g. Moira Laidlaw in China and Jack Whitehead in the UK). Connecting with people who were dealing with similar issues created a community to whom our efforts were visible. We minimised external threats chiefly by ignoring them and by persistently acting in the public domain, where we gained the sympathy of some of the people employed in the Agency for the Education of the Croatian Republic. Their support was important since it thwarted any threats that would be dangerous in a local context. Therefore, the diminishing of external threats is possible through the creation of public networks that:

> …generate communicative power; that is, the positions and viewpoints developed through discussion will command the respect of participants not by virtue of obligation but rather by the power of mutual understanding and consensus. Thus, communication in public spheres creates legitimacy in the strongest sense, that is, the shared belief among participants that they freely and authentically consent to the decisions they reach. (Kemmis & McTaggart 2005, p. 589)

This communicative power (see also Habermas, 1998) made our learning and the adult-participants' exchange of experiences available, and at the same time provided necessary support during the processes of making essential changes.

5) *'When threat to the self is low, experience can be perceived in different fashion and learning can proceed.'* (Rogers, 1969, p. 161)

Despite our efforts to reduce external threats we were aware that the pupils' action research was not part of the official curriculum and this made Marica feel guilty. However, this feeling quickly evaporated when she became conscious that pupils weren't losing anything in an educational sense by engaging with action research but instead were gaining an opportunity to participate in education of the highest quality. Moira Laidlaw confirmed this when she wrote:

> I watched your colleague's classroom, with the children accounting for their action research (Validation), and as I watched I knew again how education, especially education of that

highest quality, is the answer to the world's ills. I and other people I work with round the world have been saying that for years, and in your videos, I saw the antidote… The great thing is… that your form of educational life can give hope not only to you and your colleagues and students and country, but also to the world, because the values you embody with your colleagues and students are those, I am convinced, that can change the world. (Laidlaw, 2005)

We may conclude that the most important precondition for the successful realisation of this project was our readiness to face our own fears, which might have been more exaggerated than any real threats. Although we did not have any particular support during the project, there were no particular threats endangering its success. When we realised that, we directed our creative energies towards supporting pupils who were also facing their own feelings of insecurity in their abilities, particularly when they compared themselves with other, more successful, class-mates (see Marica's record from p. 20). It is interesting to note that children as well as adults faced similar feelings, although the causes were different. However, pupils' successful overcoming of these problems greatly depended upon their teacher's ability to cope with doubts and crises, all of which were unavoidable in the processes of learning and therefore during the realisation of action research as well. Because of that the care for pupils' action research above all else meant a care for teachers as well, because it is their support which is decisive for pupils' success in any significant learning.

6)   *'Much significant learning is acquired through doing. Placing the student in direct experiential confrontation with practical problems, social problems, ethical and philosophical problems, personal issues, and research problems, is one of the most effective modes of promoting learning.'* (Rogers, 1969, p. 162)

Instead of a theoretical explanation of action research principles and methodologies, to the pupils it was far more important that they did it. But at the same time, from Video 3 and Video 4 it is obvious that they fully understood all the important ingredients of action research. Therefore, the main message from our research for teachers intending to do something similar would be to reduce any theorizing about action research as much possible; it seems advisable to allow pupils to learn by doing. Pupils will soon realise the meaning of particular terms, for example by doing, and they will probably surprise us with their original and appropriate definitions. Pupils' complete understanding of action research helped us in our own projects subsequently when it became necessary to explain in a simple way to teachers and students of the teachers' faculty the essential features of action research. In that way pupil action researchers contributed to the popularization of action research in Croatia, and we believe, abroad too, since their videos were available at the Internet and they were published in several international publications (e.g. Whitehead, 2005b; Whitehead & McNiff, 2006).

7)   *'Learning is facilitated when the student participates responsibly in the learning process, when he chooses his own directions, helps to discover his own learning resources, formulates his own problems, decides his own course of action, lives with the consequences of each of these choices, then significant learning is maximized.'* (Rogers, 1969, p. 162)

We consider that action research represents an excellent opportunity for pupils to show their responsibility in learning how to make their own lives and the lives of other

people more meaningful. *We are wondering, is this not perhaps the purpose of learning, not only in school but throughout our lives?*

One of the problems we faced while attempting to help pupils to become action researchers was appropriately-detailed planning. Namely, it was difficult to envisage everything in advance, especially if we wanted to respect pupils' freedom and creativity. We consider that a teacher's detailed planning of action research process could bring into question pupils' freedom and responsibility for the processes of their learning. Because of this we tried to talk things over all the time. In that way we aimed to avoid any teacher's research becoming a controlling process. Our intention was for the whole project to become a genuinely democratic process in which all participants were equal, regardless of prior knowledge and age. It was the only way that all of us genuinely could become learners.

8)   *'Self-initiated learning which involves the whole person of the learner's feelings as well as intellect is the most lasting and pervasive.'* (ibid., p. 162)

That it was not merely about learning, 'which takes place only from the neck up' (ibid. p. 163) but about holistic learning was affirmed by Moira Laidlaw:

The children in this classroom seem connected to themselves and their motives, their feelings and their delights, their minds and their hearts all at once. In China there is a New Curriculum, which specifies that learning in the classroom should be about the whole child. I sense that if curriculum-planners were to see your work, Teacher Marica's work, the pupils' work, then they would see what it means to teach a child holistically. There is a sense of organic growth in this classroom at this moment. I see rapt attention. I see enthusiasm. I see purpose. I see understanding. I see logic, and thinking. I see delight. I see life itself! (Laidlaw, 2005)

We consider that pupils' action research represents an excellent opportunity for holistic learning by which pupils set out to obtain essential changes in their lives. Everything they learned by doing was according to their own values and was deeply connected to their real needs. They learned how to be better friends, how to improve relationships in their families, how to be active, how to help others to be happy too, how to live better. This learning was not realised in a theoretical fashion, but through the pupils fulfilling their own values actively. These processes provoked much excitement from them and from other people who participated in the process.

9)   *'Independence, creativity, and self-reliance are all facilitated when self-criticism and self-evaluation are basic and evaluation by others is of secondary importance.'* (Rogers, 1969, p. 163)

Freedom and creativity were the two most important values we had intended to realise not only in this project, but in other living situations too. That the pupils truly did have complete freedom in each phase of the research, as well as in their choice *not* to choose to do action research at all, was affirmed by Video 3 (from 3.22 to 4.30 minutes). In addition, this aspect was highlighted independently by Moira Laidlaw in the comments we mentioned earlier. Our research demonstrated that children as well as adults are capable of showing the full range of creative potentiality in an atmosphere of freedom. However, freedom and creativity were not just a reflection of pre-existing social conditions, but

instead depended on each participant being wholehearted in the pursuit of such life-affirming values. To be free means to be ready to dedicate one's own time and creative potential to the creation of truth that cannot only be realised through our own creative and responsible actions. Pupils who decided to engage in action research inquiries showed a readiness and an ability to accept comments from the critical friends they chose, because they truly wanted to find out something about themselves and about what they were doing. Therefore, an evaluation of their research was not conducted by Marica, although she helped them all the time, but they did it primarily with the help of critical friends – their class mates. In that way they substituted traditional assessment schemes of knowledge with self-evaluation through self-directed learning.

10) *'The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.'* (Rogers, 1969, p. 163)

Action research represents the systematic and responsible implementation of changes in different living situations, and these actually constitute learning. Additionally, action research means learning about the processes of learning and this occurs through the creation of a report and submitting it for validation. Several pupils who became fully-fledged action researchers wrote their action research reports in the form of a big poster that was presented to the pupils from another school (Video 4). By doing this they were able to understand more of the significance of action research. Their reports were not just a written exercise but a template by which an exchange of experiences with other pupils became possible. And these pupils listened, wrapt, to the presentations of their peer-group action researchers. Questions they raised helped pupil action researchers to understand completely the significance of improving what was important in their lives.

From the description of the project (in the previous section) and the resulting evidence it is possible to conclude that some pupils were able to take control over all the important aspects of action research. At the same time it is important to mention that only five of twenty two pupils managed this, therefore only a minority of pupils became fully-fledged action researchers. However, almost all the pupils, to a greater or lesser extent, engaged in action research inquiries and felt themselves to be equal participants. We consider that the whole process of action research inquiring had an educational benefit for all pupils, despite the fact that only a minority of them became full-blown action researchers. Therefore, we cannot draw the conclusion that action research is an appropriate activity only for gifted children, but rather that it is important to help all pupils become action researchers regardless of the final results. We consider the establishment of an exclusive action research group of pupils could produce negative feelings like distrust and hostility from the pupils who are excluded. The joy of participation in the creative process, and the sense of inclusionality of all pupils, were reasons enough for such a conclusion.

It is important to note as well that all the pupils who became fully-fledged action researchers took leading roles in helping other pupils complete their inquiries. Branko noticed a similar occurrence with the students at the teacher's faculty whom he has been facilitating to become action researchers in the course called 'Research about Education'. Those who quickly understood and accepted the processes of action research with delight, later helped other students with their action research inquiries, especially in writing up their

reports. It is also true to say, however, that such pro-active and creative students may sometimes hinder the creativity of other students. Namely those students who imitated their more advanced colleagues sometimes lost their own originality. Generally-speaking, though, examples from the more advanced students had a positive effect on their class-mates. For that reason Branko regularly invites students from previous classes and teacher action researchers to present their own successful projects in order to stimulate novice action researchers. Moreover, when explaining the main terms about action research he utilizes the videos of the ten-year-old action researchers (Video 3 and Video 4). In addition, pupils expressed their ideas about action research in concise, simple and telling ways that are available to us as ideals and models for our own personal learning.

Although we plead for action research as an educational strategy, in our opinion it would be improper to establish action research as the set teaching activity that pupils have to engage in, in order to get a grade or for any other formal reason. For pupils, action research can only be meaningful if it is dealt with on the basis of their own needs, interests and self-chosen values. Any process that inhibits the pupils' freedom will only compromise the benefits of action research and its educational value.

Having said that, we are not really advocating action research to improve learning about traditional bodies of knowledge either, since we want to appeal to the learning of the whole person (Rogers, 1969, p. 5; 1980, p. 264) or their significant learning (Rogers, 1995, p. 281). The bearers of such learning are real pupils, with their lived experiences, needs and creative potentials who participate in making the world into one they believe in and the one they would like to live in. *Action research is not a preparation for life; it is life itself*. Therefore, it can be hardly expected that the traditional school would become a place where pupils only engage in action research. Things are further complicated by the fact that action research represents a threat to schools:

> …in which students are thought to surrender themselves to the system and become passive recipients of official truths. The idea of students as researchers who explore their own lives and connect academic information with their own lived experience is alien to many schools. (Kincheloe & Steinberg, 1998, p. 13).

Although traditional schooling still has deep roots all over the world, we agree with Kincheloe & Steinberg (ibid., p. 19) that teachers who understand the value of action research and child-centred learning should become public-relations experts, able to popularise a new approach through their own action research. It is illusory to expect that it could be done by someone not experienced in the beauty of education, in which the development of the whole person's potential is what enables us to make own own lives meaningful and worth living.

Communication between adult participants in this project was made possible through modern communication-technology based on a freeware web-system. Our communication through the web-forum appeared to be an excellent opportunity for discussion about all the important aspects of our action research inquiries as well as for documenting the whole process. That is to say, instead of research diaries we kept our records at the forum, which allowed us to send prompt responses. In that way we created a community of practice (Wenger & Snyder, 2000; Wenger, White, Smith & Rowe, 2005) in which the support was important for maintaining shared efforts. The meaning of such

support became particularly important when we connected with people at an international level, who pointed out to us the importance of that we were doing and of whose significance we had not been really aware beforehand. We realised that our action research work was important not only at a local level, but that our experiences could also be encouraging for other educators and their pupils if they intended engaging in similar projects. Stimulated by such feedback, we continued using modern communicational technologies in our subsequent projects, of which the establishment of this journal (EJOLTS) is now a significant example. We are convinced that pupils will easily be able to use these web-based technologies for communication, data-gathering, publishing and validating of the accounts as well. We are going to explore this in our future action research projects.

Finally, it would be interesting to find out how pupil action researchers understood the whole process they actively participated in. In order to get to know how they explained their own experience of conducting action research, we invited Anica and Valentina (pupils) on 5th August 2005 who, when they had finished 5th grade, were no longer being taught by Marica. Our conversation was video-taped and Branko made a transcript and a translation (15 minutes) of this talk (Video 6).

Video 6.   Conversation with pupils as action researchers (Bognar, 2008c)

References

Alderson, P. (2000). Children as Researchers: The effect of participation rights on research methodology. In Christensen, P. & James, A. (Eds.), *Research with children: Perspectives and practices* (pp. 241- 257). London & New York: Falmer Press.

Altrichter, H., Posch, P., & Somekh, B. (1993). *Teachers Investigate their Work: An Introduction to the Methods of Action Research*. London & New York: Routledge.

Argyris, C. & Schön, D. (1975). *Theory in practice: Increasing professional effectiveness*. San Francisco, Washington & London: Jossey-Bass Publishers.

Atweh, B., Christensen, C. & Dornan, L. (1998). Students as Action Researchers: Partnerships for Social Justice. In Atweh, B., Kemmis, S. & Weeks, P. (Eds.), *Action Research in Practice: Partnership for Social Justice in Education* (pp. 114-138). London & New York: Routledge.

Babbie, E. (1992). *The Practice of Social Research*. Belmont: Wadsworth.

Bognar, B. (2001a). Pedagogy: science and creativity. *Metodički ogledi,* 8(2), 69-77.

Bognar, B. (2001b). Critical-emancipatory approach to action research. *Život i škola*, 47 (6), 45-60.

Bognar, B. (2004a). *Student interview transcript based on a video recording recorded on 3 February, 2004*. Retrieved October 6, 2008, from http://ejolts.net/files/Transcript_of_conversation_about_AR[1].pdf

Bognar, B. (2004b). The stimulation of creativity in a school context. *Napredak*, 145(3), pp. 269-283.

Bognar, B. (2006a). Action research in school. *Educational sciences*, 8(1), pp. 209-227.

Bognar, B. (2006b). How to Assess the Quality of Action Research. *Metodički ogledi*, 13 (1), 49-68.

Bognar, B. (2008a, June 25). Pupils action researchers [Video file]. Video Posted to http://www.vimeo.com/1230806

Bognar, B. (2008b, July 27). Validation of a pupil's action research report [Video file]. Video Posted to http://www.vimeo.com/1415387

Bognar, B. (2008c, July 28). Conversation with pupils action researchers [Video file]. Video Posted to http://www.vimeo.com/1421265

Bognar, B. (2008d, October 4). Initial video of Marica Zovko's teaching [Video file]. Video Posted to http://www.youtube.com/watch?v=UiDmLxYqh1M

Bognar, B. (2008e, October 6). The meaning of a learning-community for my practice [Video file]. Video Posted to http://www.youtube.com/watch?v=DBPBgJz3Zy8

Bognar, B. (2008f, October 6). Approaching a school-based, child-oriented classroom with Marica [Video file]. Video Posted to http://www.youtube.com/watch?v=923FwXtNX4I

Cooke, B. (2002). A foundation correspondence on action research: Ronald Lippitt and John Collier [Working paper]. Retrieved June 18, 2007, from School of Environment and Development, Manchester University: http://www.sed.manchester.ac.uk/idpm/research/publications/wp/mid/documents/mid_wp06.pdf

Dewey, J. (1921). *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Macmillan.

Dewey, J. (1929). *The Quest for Certainty: a Study of the Relation of Knowledge and Action*. New York: Minton, Balch & Company.

Čular, G. (2000). Political development in Croatia 1990-2000: fast transition - postponed consolidation. *Politička misao: Croatian political science review*, 37 (5), 30-46.

Farren, Margaret & Whitehead, Jack (2005). *Educational influences in learning with visual narratives.* A paper and video-conference presentation at the Diverse Conference 2005. Retrieved July 23, 2008, from http://people.bath.ac.uk/edsajw/monday/mfjwwebped2.htm

Foshay, A.W. & Wann, K. D. (1954). *Children's Social Values: An Action Research Study*. New York: Teachers College, Columbia University.

Frost, R. (2007). Developing the skills of seven and eight-year-old researchers: a whole class approach. *Educational Action Research.* 15(3), 441–458.

Habermas, J. (1996). *Between facts and norms: Contributions to a discourse theory of law and democracy*. Cambridge & Massachusetts: The MIT Press.

Hegel, G. W. (1900). *The Philosophy of History* (Sibree., J., Trans.). New York: Colonial Press.

Heron, J. & Reason, P. (1997). A Participatory Inquiry Paradigm. *Qualitative Inquiry*, 3(3), 274-294.

Hodgkinson, H. L. (1957). Action research - a critique. *Journal of Educational Sociology*, 31 (4), pp. 137-153.

Isenberg, J. P. & Jalongo, M. R. (1997). *Creative Expression and Play in Early Childhood*. New Jersey: Prentice-Hall.

Kangrga, M. (1984). *Practice – Time – World*. Beograd: Nolit.

Kangrga, M. (1989). Thought and Reality. Zagreb: 'Naprijed'.

Kemmis, S. & McTaggart, R. (2005). Participatory action research: communicative action and the public sphere. In Denzin, K. N. & Lincoln, Y. (Eds.), *Handbook of Qualitative Research, third edition* (pp. 559-604). Thousand Oaks, London and New Delhi: Sage.

Kilpatrick, T. H. (1918). The Project Method. *Teachers College Record.* 19, 319–334. Retrieved July 23, 2008, from http://historymatters.gmu.edu/d/4954/

Kincheloe, J. L. & Steinberg, S. (Eds.). (1998). *Students as Researchers: Creating Classrooms That Matter*. Bristol: Falmer Press.

Laidlaw, M. (2005). *Response to Branko Bognar*. Retrieved July 23, 2008, from http://www.jackwhitehead.com/monday/mlonbb.htm

Lalović, D. (2000). Crisis of the Croatian Second Republic (1990-1999): transition to totalitarianism or to democracy? *Politička misao: Croatian political science review*. 37(5), 47-60.

Leitch, R. et al. (2007). *Educational Action Research.* 15(3), 459–478.

Lewin, K. (1946). Action research and minority problems. In Lewin, G. W. (Ed.), *Resolving social conflicts: Selected papers on group dynamics* (pp. 201-216). New York: Harper & Brothers.

Lincoln, Y. & Guba, E. (2000). Paradigmatic Controversies, contradictions, and emerging confluences. In Denzin, K. N. & Lincoln, Y. (Eds.), *Handbook of qualitative research, second edition* (pp. 163-213). Thousand Oaks, London & New Delhi: Sage.

Lippitt, R. (1950). Action-research and the values of the social scientist. *Journal of Social Issues*, 6(4), 50-55.

Marx, K. (1961). Economic and philosophical manuscripts. In Fromm, E. *Marx's Concept of Man* (pp. 93-196). New York: Frederick Ungar Publishing Company.

McNiff, J., Lomax, P. & Whitehead, J. (1996). *You and Your Action Research Project.* London: Routledge.

McNiff, J. with Whitehead, J. (2002). *Action Research: Principles and Practice.* London & New York: Routledge/Falmer.

McNiff, J. & Whitehead, J. (2006). *All You Need To Know About Action Researc*h. London, Thousand Oaks & New Delhi: SAGE Publication.

Mills, G. E. (2000). *Action Research: A Guide for the Teacher Researcher*. Upper Saddle River, New Jersey: Prentice-Hall Incorporated.

O'Brien, N. & Moules, T. (2007). So Round The Spiral Again: a reflective participatory research project with children and young people. *Educational Action Research.* 15(3), 385-402.

OECD. (2001). *Thematic review of national policies for education – Croatia*. Retrieved July 23, 2008, from   http://www.see-educoop.net/education_in/pdf/oecd-review-cro-enl-t05.pdf

Polić, M. (2006). *Facts and Values*. Zagreb: Croatian Philosophical Association.

Reason, P. (Ed.). (1994). *Participation in Human Inquiry*. London: SAGE Publications.

Reason, P. & Bradbury, H. (Eds.). (2006). *Handbook of Action Research*. London, Thousand Oaks & New Delhi: SAGE Publications.

Rogers, C. (1969). *Freedom to Learn.* Columbus, Ohio: Bell & Howell.

Rogers, C. (1980). *A Way of Being*. Boston: Houghton Mifflin Company.

Rogers, C. (1995). *On Becoming a Person: A Therapist's View of Psychotherapy*. New York: Houghton Mifflin Company.

Schön, D. (1987). *Educating the Reflective Practitioner*. San Francisco, Oxford: Jossey Bass.

Spiers, J. A. (2004). Tech Tips: Using video management/analysis technology in qualitative research. *International Journal of Qualitative Methods, 3*(1). Article 5. Retrieved July 23, 2008, from http://www.ualberta.ca/~iiqm/backissues/3_1/pdf/spiersvideo.pdf

Spindler, G. & Spindler, L. (1987). *Interpretive Ethnography of Education: At Home and Abroad.* Hillsdale: Lawrence Erlbaum Associates.

Steinberg, S. & Kincheloe, J. (1998). *Students as Researchers: Creating classrooms that matter.* London & Bristol: Falmer Press.

Stenhouse, L. (1975). *An Introduction to Curriculum Research and Development.* London: Heineman.

Stoll, L. & Fink, D. (2000). *Changing our Schools: Linking School Effectiveness and School Improvement.* Zagreb: Educa.

Stringer, E. (1996). *Action Research: A Handbook for Practitioners.* Thousand Oaks: SAGE Publications.

Ulewicz, M. & Beatty, A. (Eds). (2001). *The power of video technology in international comparative research in education.* Washington: National Academy Press.

Vygotsky, L. (1993). Extracts from Thought and Language and Mind in Society. In Stierer, B. & Maybin, J. (Eds.), *Language, literacy, and Learning in Educational Practice: A Reader (Language and Literacy in Social Contexts)* (pp. 45-58). Clevedon: Multilingual Matters Ltd.

Vygotsky, L. (2004). Imagination and Creativity in Childhood. *Journal of Russian & East European Psychology*, 42(1), 7-97.

Wenger, E. & Snyder, W. (2000). Communities of Practice: The Organizational Frontier. *Harvard Business Review*, 78(1), 139-145.

Wenger, E., White, N., Smith, J. & Rowe, K. (2005). *Technology for Communities.* Retrieved Jun 19, 2007, from http://technologyforcommunities.com/CEFRIO_Book_Chapter_v_5.2.pdf

Whitehead, J. (1989). Creating a Living Educational Theory from Questions of the Kind, 'How do I Improve my Practice?' *Cambridge Journal of Education*, 19 (1), 41-52.

Whitehead, J. (1991). How do I improve my Professional Practice as an Academic and Educational Manager? A dialectical analysis of an individual's educational development and a basis for socially orientated action research. In J. Whitehead. (1993). *The Growth of Educational Knowledge: Creating Your Own Living Educational Theories* (pp. 79-95). Hyde: Bournemouth.

Whitehead, J. (2003). Creating our living educational theories in teaching and learning to care: Using multi-media to communicate the meanings and influence of our embodied educational values. *Teaching Today for Tomorrow*, 19, 17-20.

Whitehead, J. (2005a). Living Educational Theories and Multimedia Forms of Representation. In Bodone, F. (Ed.), *What Difference Does Research Make and for Whom?* (pp. 77-91). New York, Berlin, Brussels, Vienna, Oxford: Peter Lang.

Whitehead, J. (2005b). Living inclusional values in educational standards of practice and judgement. *Ontario Action Researcher,* 8(2). Retrieved October 6, 2008, from http://www.nipissingu.ca/oar/PDFS/V821E.pdf

Whitehead, J. & McNiff, J. (2006). *Action Research: Living Theory*. London, Thousand Oaks & New Delhi: SAGE.

Winter, R. & Munn-Giddings, C. (2001). *A Handbook for Action Research in Health and Social Care*. London: Routledge.

Zovko, M. (2005). My educational values [Msg 1]. Message Posted to http://e-lar.net/moodle/mod/forum/discuss.php?d=65