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Holistic school pedagogy and values: Finnish teachers' and students' perspectives

Kirsi Tirri*

University of Helsinki, Finland

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ABSTRACT

The purpose of the study was to identify the components of holistic school pedagogy as identified by a sample of Finnish secondary school teachers and students from two schools. Holistic pedagogy concerns the development of the whole student and acknowledges the cognitive, social, moral, emotional and spiritual dimensions of education. The data were gathered in spring 2008 and include 19 interviews of Finnish secondary school teachers of different subjects and 37 interviews of their students. The teachers and students came from two schools that both emphasize mathematics in their curricula. Analysis of the teachers' and students' interviews revealed three different components in holistic school pedagogy. These components were values and worldviews, field-invariant pedagogical components (which are important regardless of the content or the subject) and field-dependent pedagogical components (subject- or context-specific issues, such as pedagogical content knowledge of mathematics or the type of school). Holistic school pedagogy also emphasized the importance of the whole school community for the best pedagogical practices in schools.

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1. Introduction

In many European countries, such as Finland, education aims to support the development of the whole person rather than merely the cognitive domain ([National Core Curriculum for Upper Secondary School, 2003](#)). This kind of education acknowledges the importance of social and affective domains in student development, including their emotional and spiritual concerns. All over the world, schools are under pressure to create safe, orderly, and effective learning environments where students can acquire social as well as academic skills that will allow them to succeed in school and beyond. Over the past two decades, student and teacher populations have become increasingly diverse. Schools today face the challenge of creating pedagogical environments that are sensitive to numerous individual backgrounds in order to support students' social and academic success. Students benefit both socially and academically when they are supported by a caring classroom and school environment ([Noddings, 1992](#); [Tirri & Husu, 2006](#)).

During the past decade, Finland has become one of the leading European countries in student school achievement. According to the Organization for Economic Co-Operation and Development (OECD) Programme for International Student Assessment (PISA) 2001 and 2004, Finnish 15-year-olds scored above the OECD average in their performance. Furthermore, Finnish students scored highest in all tests measuring mathematics literacy ([OECD, 2001](#), p. 78; [OECD, 2004](#)). On the other hand, we know from earlier studies by the Finnish Institute of Occupational Health that students assessed their school atmosphere and environment quite negatively. According to the students, the opportunity to participate in and to influence

* Corresponding author.

E-mail address: kirsi.tirri@helsinki.fi.

their pedagogical environment was minimal (Savolainen et al., 1998). In the HBSC study 2001–2002, which compared school satisfaction in 35 countries, Finland came in last place; only 4.2% of Finnish pupils liked school a lot (Samdal et al., 2004). Furthermore, Finnish teachers are experiencing more and more challenges with the rising number of immigrant students and children with learning difficulties. These pedagogical challenges are discussed in more detail in Hanhimäki and Tirri (2008) and Hanhimäki and Tirri (2009). They are also the subject of much recent international research in values education and its positive impact on student wellbeing, including in diverse settings (Lovat, Toomey, & Clement, 2010).

The purpose of this article is to investigate the components of holistic school pedagogy as identified by Finnish secondary school teachers ($N = 19$) and students ($N = 37$) from two schools, both of which emphasize mathematics in their curricula. One school, a boarding school, is located in the countryside of Finland and selects students based on an admissions test developed by the teachers of the school. The other school, a regular school, is located in the capital area of Finland and selects students based on the normal criteria used by secondary schools in Finland. We interviewed teachers and students from both schools and aimed to identify the field-invariant and field-dependent pedagogical components that contribute to holistic school pedagogy and wellbeing in both schools. The main emphasis of the article is on the importance of values, as perceived by the research participants.

2. Holistic school pedagogy: wellbeing in schools

Konu and Rimpelä (2002) provide an early approach to defining a conceptual model of wellbeing in schools. Their model derives its theoretical background from Allardt's (1989) sociological theory of welfare in which teaching and learning are interconnected. School conditions (the "having" dimension) include the physical environmental surroundings and the environment inside the school, as well as physical elements relating to the safety of the working environment. This dimension also comprises the learning environment, including the curriculum, group sizes and schedules, as well as services for students. Social relationships (the "loving" dimension) refer to the social learning environment, student–teacher relationships, peer relations, bullying, cooperation between home and school, and the whole ethos of the school. Self-fulfillment in school (the "being" dimension) refers to the ways in which the school offers means for self-fulfillment. All students should be considered equally important members of the community and provide each other room to actualize their potential and to participate in decisions that affect their school. Health status (the "health" dimension) includes psychosomatic symptoms, chronic and other illnesses, as well as common colds (Konu & Rimpelä, 2002, p. 83).

3. Educational purposefulness

Often neglected in educational settings, but increasingly recognized as essential to adolescent development, is the notion of purpose in life (Damon, 2008). Purpose is defined as a stable intention to accomplish something (a cognitive identification aspect) that is both meaningful to the self (an affective aspect) and of consequence beyond the self (a moral/behavioural aspect) over time (a dynamic aspect) (Damon, Menon, & Bronk, 2003). To live purposefully, one must understand one's purpose(s) in life, be future-oriented and future-planning, and believe that one has the capacity to achieve one's life goals. Teachers need a sense of purpose to find their work educationally meaningful and to be able to foster purposefulness in their students.

Self-fulfillment is an important part of humane wellbeing in schools. Waterman (1993) labeled the state of living in which one feels most authentic and alive (i.e., living in accordance with one's *daimon*) as "personal expressiveness," and suggested that this state is most likely to occur when one is engaged in activities congruent with one's deepest-held values and life goals.

Teachers' visions or their images of ideal school practices are ways to access teachers' sense of purpose. A vision can provide inspiration and motivation to teachers as well as guide them to reflect on their work (Husu & Tirri, 2007). According to Darling-Hammond (1990), one of the most powerful predictors of a teacher's commitment to teaching is the teacher's sense that he or she is making a positive difference in the lives of students. In the secondary school context, teachers need skills to teach their subject matter in ways that would open up its educational meaning. The German concept of *Didaktik* is based on the idea that any given matter can represent many different meanings, and many different matters can open up any given meaning. Matter cannot exist without meaning, however, and meaning cannot exist without matter (Hopmann, 2007, p. 116). Meaning is what emerges when content is enacted in a classroom based on the methodological decisions of a teacher. This process fosters the individual growth of the student. Hopmann (2007) describes this process as follows:

The purpose of teaching and schooling is in this perspective neither to transport knowledge from society to a learner (curriculum), nor a transpositioning of knowledge from science or other domains to the classroom, but rather the use of knowledge as a transformative tool of unfolding the learner's individuality and sociability, in short: the *Bildung* of the learners by teaching" (p. 115).

4. Values and worldviews

Holistic school pedagogy involves the education of values and worldviews of the students. We can identify the historical and philosophical roots underlying different worldviews. According to McCallum (1997), the world's religions and

philosophies tend to break down into a few major categories. He has identified five worldviews that include all the dominant outlooks in the world today. These worldviews are theism, naturalism, pantheism, spiritism and polytheism, and postmodernism. In this context, we discuss the two main worldviews expressed in this study (theism and naturalism) in more detail.

In theism, people believe in the existence of an infinite, personal God who has created a finite, material world, and that reality is both material and spiritual. A theistic belief is that the universe as we know it had a beginning and will have an end. Humankind is seen as the unique creation of God. People were created “in the image of God”, which means that we are personal, eternal and spiritual, as well as biological. Moral values are therefore the objective expression of an absolute moral being. In naturalism, on the other hand, people believe that the material universe is all that exists. Reality is “one-dimensional” and the soul or spirit does not exist. Everything can be explained on the basis of natural laws. The naturalist believes that humankind is the product of a biological process of evolution and is entirely material. With regard to values, no objective values or morals exist. Rather, morals represent merely individual preferences or socially useful behaviours.

5. Data and method

The data include 19 secondary school teachers of different subjects and their 37 students, all of whom are interested in mathematics. Approximately half of the students ($N = 20$) attend a boarding school with a program in mathematics, and the other half ($N = 17$) study in a regular secondary school, which offers a special curriculum in mathematics. Tables 1 and 2 present information about the teachers and students in this study.

The boarding school, an independent private school located in the countryside of Valkeakoski. Nokia, the largest IT company in Finland, supports the mathematics program such that studying and living in this boarding school is almost free for the students. The mathematics program began in 1994. The school selects 20 students annually according to its “excursion weekend” tests. The students are mathematically talented 15- to 18-year-olds who will graduate from the senior secondary school in two years instead of the average three years in Finland. The school provides a tailored curriculum specifically designed for mathematics and the natural sciences, but other courses and practical training also fit well into the studies. Nokia Research Center Toijala supports the personal growth of talented youth through their participation in research projects, relevant training and mentoring. The regular secondary school is located in the capital area of Finland and offers a special curriculum in mathematics. The students are selected based on their grade point average.

All the teachers and students were interviewed during the spring of 2008. In the personal interviews, the teachers and students were asked to tell about their motives for choosing the school they attend or in which they teach. Furthermore, the teachers and students discussed their teaching and learning in schools by telling about their former and current experiences. Their values and purposes in teaching and learning were explored with the possible worldviews underlying them. The interviews were conducted in the schools; each interview lasted 40–60 min and was tape-recorded and later transcribed. All the interviews were analyzed according to the main themes discussed in the interviews. In this paper, we report findings related to the values and purposes in teaching and learning as well as teachers' and students' reflections on their current school environment.

6. Results: teachers' perspectives

Teachers of different subjects identified some similar purposes in their teaching. Ten teachers out of nineteen emphasized the importance of worldview as an educational goal in their teaching. All the teachers sought to promote a scientific

Table 1
Description of teachers.

	Boarding school	Regular school
Gender = male	6	4
Gender = female	3	6
Subject taught = mathematical subjects	4	5
Subject taught = non-mathematical subjects	5	5
Teaching experience < 15 years	4	2
Teaching experience > 15 years	5	8

Table 2
Description of students.

	Boarding school	Regular school
Gender = male	9	16
Gender = female	11	1
Worldview = theist	6	4
Worldview = naturalist	13	13
Worldview = postmodernist	1	0

worldview with some basic thinking skills. Teachers aimed to impart some basic elements and skills to their students so that they could form their own worldviews. This emphasis was the same for teachers of mathematical subjects as well as teachers of humanistic subjects. Else, a teacher of religious education and philosophy, sought to advocate the global citizenship skills of her students. According to her, independent thinking, argumentation skills and ethical reflection are important skills for students to acquire. She also mentioned tolerance as an important quality she wants to impart in her teaching. Philosophy and ethics are both subjects that require mastery of certain concepts before good quality argumentation is possible.

Teachers from both schools and of different subjects considered the social life of schools very important to the ethos of the school. In both schools, students played chess and music together, which contributed to a positive pedagogical environment. The teachers also cooperated with each other and planned courses together. In the regular school, for example, the native language and art teacher planned and taught a common course. The teachers also felt that they could share their tiredness and possible stress with each other and support each other in their teaching. The teachers of the boarding school emphasized the importance of the community to their students' personal growth. This emphasis can be seen in the following interview quote:

The students learn social skills here and find a community with like-minded people. Many of our students have been bullied in their former schools, but here they see that they can be themselves in a friendly environment and learn scientific thinking and form a scientific worldview without losing their personalities (Female boarding school teacher)

All the teachers emphasized the importance of teaching at the appropriate ability level of the students. Teachers' thinking reflected the idea of finding the 'zone of proximal development' identified by *Vygotsky (1978)*. Teachers also identified the need to direct their teaching in a way that was appropriate to the discipline in question, in this case with an emphasis on mathematics.

7. Results: students' perspectives

The majority of students in both schools ($N = 30$) found the curriculum very important in their choice of a school. These students wanted to study mathematics, computer science and subjects that emphasized the natural sciences. Both schools provided the kind of curriculum which supported the interests of these students. Social relations in these schools were motivating factors for 15 students to attend their schools of choice.

The students emphasized the role of teachers, the school with its special curriculum, and similar-minded friends in supporting their interests and learning. A boy from the regular secondary school credited the role of teachers and downplayed the positive effect of friends on his smaller group of students who shared similar interests in mathematics and science. The following quote well illustrates a typical positive school experience of a student from this school:

The teachers have always been good. I am the intellectual type, not the athletic type, and enjoy the company of similar friends. In secondary school, the special curriculum in mathematics attracted people like me, and I have been friends with them. (Boy from regular school)

Of the 37 students, 18 reported mainly negative experiences in previous schools, and 10 of these had been bullied and socially isolated in their previous schools. A typical example of these negative experiences is reflected in the following quote from a boarding school boy:

What are friends? I had terrible school experiences and no friends. I got along with the teachers, but all the schoolmates bullied me. Elementary school was the worst, but in secondary school, things got easier when teachers stopped the bullies. (Boy from boarding school)

8. Students' values and worldviews

In the interviews, all the students were asked to list things that are important to them and that they value highly. The most frequently mentioned item of importance in their lives was their friends and social relationships. Of the things they value most in life, 22 students mentioned friends. Friends provided them with support, safety and a community where they could share their joys and sorrows. Many students in both schools mentioned how great it is to study in a school with like-minded friends who share the same interest in mathematics and science. The emphasis on friends also appears in other recent Finnish studies on the values of young urban adults. The most important things in the lives of young urban adults were friends and acquaintances (4.5 on a scale from 1 to 5). Family was also valued as highly as friends and acquaintances (*Mikkola, Niemelä, & Petterson, 2007*).

In addition to good social relations, students ($N = 17$) felt that having goals in life was very important. Goals gave them a purpose in life and helped them to thrive in their studies. The most frequently mentioned goals were having a good profession, such as a medical doctor or a scientist, as well as wisdom and intelligence, money and success. They also identified traveling and learning about different cultures as worthwhile goals in life.

Adolescents ($N = 14$) valued their families and also wanted to have a good family life in the future. Many of them came from families that valued education and knowledge and had parents who supported their children in their interest in

mathematics. Seven students identified “life itself” or “small things in life” as the most important things they valued. Four students mentioned hobbies, such as music, festivals and games, as very important things to them. In addition, young adults in Finland’s capital region reported leisure and music as the most important things in life after friends and family (Mikkola et al., 2007).

Three students felt that happiness in life means helping other people. Among the things they valued most in life, they included different altruistic behaviours in helping others. Two students, one a Muslim and the other a Christian, listed religion as the greatest value in their lives. One student also mentioned nature as the most important thing in life. These results are very much in accord with the results reported among young urban adults. In these studies, Finns rated voluntary organizations, politics and religion as the least appreciated areas of life. In this study, adolescents themselves identified altruism and religion as important values in life.

9. Students’ worldviews: theism

All the students valued knowledge and science, reflecting aspects of a naturalistic worldview. In addition, of the 37 students, 10 (6 boys and 4 girls) expressed a theistic worldview in their interviews. Five of these students expressed their beliefs directly by stating that they are Christians. The following extract from Emma’s interview represents an example of how these adolescents talked about their beliefs and values:

My worldview is based on Christian values, and I believe in the Bible. I don’t take the Bible literally, though. Even though human beings are quite equal to other living creatures, I think humans are meant to rule in the earth. God and faith give me security. I pray and participate in Christian gatherings and meetings. I don’t find science and belief contradictory to each other. I feel that I can be a Christian scientist.

Emma’s perspective reflected a theistic worldview in which humankind is the unique creation of God and was made to rule the other creatures. Furthermore, she based her value system on the Bible, although she did not take it literally. She also felt that she could combine science and belief in her worldview and become a Christian scientist. Kim, another Christian, defined knowledge as “*the beliefs of the majority*” and discussed the different nature of knowledge in the humanities and natural sciences. Kim described his ideas of knowledge and belief in the following ways:

In the humanities, you base your knowledge more on beliefs than on knowledge. In the natural sciences, knowledge is very exact, as in $1 + 1 = 2$. I think that knowledge and faith are contradictory to each other. Personally, religion and faith are important to me, but I don’t expect them to be important to others. Religion does not affect my behavior very much. Because we differ on the issues of faith and religion, I think we should stick to knowledge in our mutual business. For example, in moral issues, religion makes it more difficult to reach a common understanding. People have different images of God, and some people don’t believe in God at all.

Kim considered himself a believer and found faith and religion important to him. He wanted to keep his beliefs private and personal, however, and so chose to communicate with other people through knowledge. According to him, this approach makes it easier to live together in a pluralistic society. Two other boys expressed a similar approach in their worldview, saying that religion and faith were personal and important things, but that knowledge and science provided them with the common ground to communicate with others.

In addition to the Christian subjects, the data included one Muslim student. Originally from Afghanistan, Muhammed moved to Finland when he was in the fifth grade. In the interview, he strongly identified himself as a Muslim, and religion as the most important thing in his life. Muhammed lists “*my own life, family and studying*” as meaningful things in his life. He would like to become a medical doctor because of a lack of medical doctors in Afghanistan, and feels he could help others in that profession. Furthermore, he would like to become a good person with a profession. In addition to helping others, he would also like to teach others regarding “*what is good and what is bad*”.

10. Students’ worldviews: naturalism

In their interviews, 5 (4 boys and 1 girl) of the 37 students expressed a naturalistic worldview with atheism. They all described themselves in the following ways:

I am an atheist, absolutist and positive. (Hugo)

My attitudes are quite atheistic; I don’t believe in any higher force. (Mike)

I don’t believe in God. (Jim, Matt)

I am not religious at all. (Sara)

According to Jim, evil things and problems in the world make it impossible for him to believe in God. He believed his family and friends would provide him support if he needed it. He also expressed altruism as an important value in his life and wanted to help others to make the world a better place. He planned to become a medical doctor because, in that profession,

he could help people. Hugo's worldview had a very similar profile to Jim's, and both shared the same reasons for their atheism. Furthermore, Hugo also wanted to become a medical doctor and, in that role, to help other people. Both boys respected people who believed in God – even admired them for their belief. Mike also found it important to search for the mutual good in life and to use his talents to make his own contribution to it. Matt respected cultural diversity and built his worldview on respect for others. Sara, the only atheistic girl in these data, wanted to build her worldview on facts and knowledge. She believed in the natural order of things and wanted to make a contribution to the equality of people, especially to women's rights. She considered law and women's studies as possible subjects to study after high school.

A total of 21 adolescents (14 boys and 7 girls) reflected agnosticism in their worldviews. Five of them expressed a more negative than positive attitude towards faith and believing. Robert, for example, described his view of belief as follows:

I have never liked religious institutions very much. I'd rather think for myself than take as truth what a priest says in church. I don't approve of any single religion as such because they all make a mistake in some issue. I have always found science and knowledge so rewarding. My favorite moments have been related to situations in which I read some scientific article, and it gave me some great ideas.

Keith based his worldview on the physical sciences and their idea of determinism. We have free will, but our brain structure imposes limits to this freedom. According to Keith, "*belief is wrong knowledge*" and "*religion is people's yearning for community and their original effort to explain nature*". Likewise, Susan wanted to trust knowledge and considered herself "*a person who builds her life on facts. Knowledge is trustworthy and increases all the time*". According to Sue, "*logical thinking and knowledge before belief are important*". She does not find religion interesting at all right now, but wants to concentrate on knowledge acquisition. Paula was raised as an atheist but considers herself an agnostic. She has a constant need to learn anything possible and also values the social sciences and psychology in order to learn more about how people and society function.

Of the 21 adolescents with agnostic views, 16 saw belief, faith or religion in a positive light and gave them some credit. All of the adolescents said that knowledge and science are more important to them than beliefs. However, many of them viewed faith and belief as imbuing life with a sense of purpose or an extra dimension. In describing her worldview and beliefs, Ann provides a fine example of this view:

It is more difficult for me to take a stand in belief than in knowledge. I can't say for sure that I believe. I find belief to be exciting, but not as exciting as knowledge. Knowledge is more important, but belief is more meaningful.

11. Conclusion

The empirical results support the importance of a holistic approach to school pedagogy. In both schools, teachers and students emphasized the emotional, social, moral and spiritual aspects of education. The students in both schools were very cognitive and science-oriented, but needed a lot of social and emotional support for their personal growth. *Values and purposes* can be identified as important aspects of school pedagogy. Teachers need to identify and to verbalize educational goals and meanings for their teaching in order to meet the aims of holistic learning. We were able to identify some field-invariant pedagogical components in holistic school pedagogy that were common among the teachers from both schools and who taught different subjects. All the teachers emphasized the importance of providing the students with the skills and tools to form a worldview. These skills include independent thinking, argumentation skills, and ethical reflection. The mastery of the central concepts in each subject taught provides the students with the vocabulary they need for this kind of discussion and reflection.

The students emphasized the importance of the school community to their learning. This community included both teachers and like-minded friends. The special curriculum in both schools attracted students with similar interests and provided them with both the cognitive and emotional skills necessary for their personal growth. In both schools, students had an opportunity to form a worldview and were able to discuss it with both scientific and religious components. Even though the students could express their own values and worldviews, they also showed respect and tolerance of diversity and a readiness to engage in dialogue with others who held worldviews different from their own.

We could also identify some field-dependent components in school pedagogy that were specific to certain subjects or typical of a particular type of school. In the boarding school, both teachers and students emphasized the importance of community as a special characteristic of the school. Many students came to this school because their sister or brother had attended it before and were already familiar with its ways. Some of the teachers were former students of the school and wanted to continue living in this family-like community. Living in the boarding school taught many students new independent living and social skills. The tempo of teaching and studying was also faster than in the normal school, and the students enjoyed the challenges of this kind of education.

The study offers grounds for some concrete pedagogical applications. The teachers of different subjects should plan their teaching with clear educational purposes. These purposes should reflect the values and worldviews underlying the subject matter taught. Students should be provided with the necessary skills and concepts to discuss and reflect upon each subject matter taught in school. The whole school community contributes to the wellbeing of its members. Social, emotional, and spiritual needs, such as like-minded friends and colleagues who share similar interests and provide a friendly environment for teaching and learning, should also be acknowledged as important elements of human wellbeing. These findings are

consistent with increasing recognition of the vital role that dealing with the implicit and explicit values that characterizes students' lives is an essential facet of effective learning.

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