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The Moral Role of Pedagogy as the Science and Art of Teaching

Kirsi Tirri and Auli Toom

Abstract

The purpose of this chapter is to present the key concepts and actors in pedagogy and didactics in the context of institutional teaching. We present a holistic approach to education and view human beings as lifelong learners who need to be educated comprehensively to actualize their full potential. In this chapter we discuss how pedagogy, the science and art of teaching, can promote the educational goals identified in the curriculum. In this chapter we adhere to the *Didaktik* curriculum tradition in which values and morals are emphasized in guiding the teaching-studying-learning process. This means that pedagogy is moral in nature, and the teacher's main task is to reflect the values underlying her teaching and the purposes she wants to advance in her teaching. We also discuss the current pedagogical challenges in both basic and higher education in educating students for the twenty-first century.

Keywords: pedagogy, *Didaktik*, teaching, learning, values, moral

1. Introduction

The purpose of this chapter is to present the key concepts and actors in pedagogy and in pedagogical relationships in the context of educational institutions. The goals of education are established in a national curriculum and in more detailed institutional curricula. In many countries, for example, in Finland, the goal of education is to support the development of the whole personality, rather than merely the cognitive domain [1]. In this kind of holistic approach, human beings are lifelong learners who need to be educated in all educational domains to actualize their full potential. These domains include three domains in learning as identified by Benjamin Bloom: cognitive, affective and psychomotor [2]. Many learning tasks, for example, the skills related to morality, require teaching and learning in both cognitive and affective domains [3]. In this chapter we discuss how pedagogy, the science and art of teaching, can promote the educational goals identified in the curriculum.

We can identify two different curriculum tradition influencing national curriculums in different countries. The *Bildung* tradition aims at educating individuals to become competent citizens who actualize their individual talents and also benefit the society with their competences [4]. *Bildung* advocates the importance of individual and society transformation through education. In Europe and Nordic countries, *Didaktik* is a curriculum tradition guided by the philosophy of *Bildung* and the idea of educating instruction, *erziehende Unterricht*, in educational institutions. In that tradition, the pedagogical relation between the teacher and students,

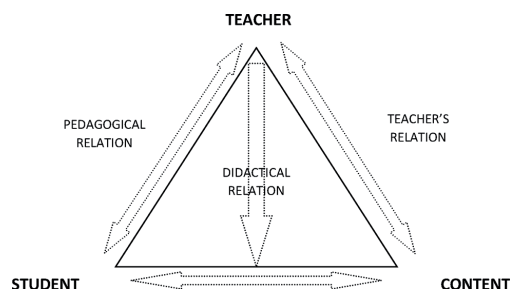


Figure 1.
The basic elements and relations in the didactical triangle [16, 17, 19, 22].

the content relation of a teacher to the subject matter and the didactic relation of a teacher to students' learning are seen as core elements in teaching-studying-learning process (see **Figure 1**).

In this *Didaktik* curriculum tradition both the teacher and the students have autonomy in teaching-studying-learning process that cannot be restricted by any legislation or evaluation [5]. The teaching is guided by a "Lehrplan" that can only be implemented by a competent teacher who has total freedom to choose her teaching contents and methods [4, 5]. The goals of curriculum and teacher's skills to actualize those goals in her teaching are the ways to evaluate the success of a teacher.

The Anglo-American curriculum tradition is based on psychological theories on learning, and the emphasis is on accountability and learning outcomes [6]. The curriculum and the teaching plans are well-articulated and detailed with the goals to achieve the learning objectives with clearly defined contents. The teachers are trained to teach certain contents with the goal to produce good learning results that can be measured objectively with standardized tests. Teachers are certified after their training, and they are evaluated regularly on the basis of their students' learning outcomes [4, 6]. Teachers' task is to implement the given national curriculum and achieve the learning objectives listed in them.

2. The moral core of pedagogy

In this chapter, we adhere to the *Didaktik* curriculum tradition in which values and morals are emphasized in guiding the teaching-studying-learning process and in educating pupils as whole. This means that pedagogy is moral in nature, and the teacher's main task is to reflect the values underlying her teaching and the purposes she wants to advance in her teaching. In addition to the values established in the national curriculum, the teacher needs to be aware of the ethical codes guiding the teaching profession. The professional status of teachers differs from country to country. In Finland, for example, teachers are considered ethical professionals who can be trusted and who share similar basic values about their work. These values are established in the ethical codes for teachers, which were first published in Finland in 1998. The values are dignity, truthfulness, fairness, responsibility and freedom [7]. In 2017 the Teachers' Union in Finland continued to strengthen the professional status of its members and established the Comenius' Oath for teachers [8]. The purpose of this oath was to support teachers and provide a concrete reminder of the ethical foundation of their profession. The freedom given to teachers challenges them constantly to develop their ethical skills with regard to their students, colleagues, themselves and the networks with which they cooperate. In this pedagogical challenge, teachers need ethical sensitivity to identify and solve context-specific moral dilemmas in teaching [3].

Shulman [9] argues that teacher's knowledge of ends, purposes and values of education is perhaps the most important part of teachers' professional knowledge. This kind of knowledge includes the following issues: the visions on what is possible in pedagogy, how a pedagogically well-functioning school might look like, what the students should become and how good education can be defined [9]. In Finland, for example, the holistic growth of students is emphasized in the national curriculum with the aim to educate them to be good citizens who contribute to the society with their talents [1]. This goal of education assumes that the teacher has internalized the values and purposes in education and can actualize them in her teaching. In addition to these general pedagogical values, the teacher needs to be aware of the subject-specific values of each subject taught [10]. A current pedagogical challenge for Finnish teachers includes the task of curriculum integration [11].

According to Niemelä and Tirri the need for an integrated curriculum emerges from current ethical and social issues in the world. Curriculum integration can be applied, for example, to teaching what climate change means and what can be done to stall, if not reverse it. Curriculum integration can also advance democratic education in schools with a pedagogical purpose of meeting the needs of diverse students [11].

To be able to act as an ethical professional with a long-term commitment, a teacher needs a personal purpose for her work [12]. William Damon and his colleagues have defined the term "purpose" as "a stable and generalized intention to accomplish something that is both meaningful to the self and of intended consequence to the world beyond the self" [13]. Tirri argues that to meet the criteria of a purposeful teacher, three criteria needs to be met. They include intention, engagement and prosocial reasoning [12]. Purposeful teachers are those professionals who have internalized the moral core of pedagogy and the long-term goals in education. Those goals need to be both personally meaningful for a teacher and at the same time go beyond herself to serve her students holistic growth.

3. Main concepts in the research on teaching

3.1 Pedagogy, Didaktik and didactics

In the Anglo-American contexts, the concept of pedagogy is usually used as a synonym to the German concept of didactics (die Didaktik). The *Didaktik* is an invention of nineteenth-century teacher education in Germany and in Nordic countries [5, 14]. In Anglo-American literature, the concept of didactics is used differently than in the European tradition. The term might have a negative connotation with the idea of direct instruction where a teacher is imposing her right doctrine to the student [15]. In this chapter we use the term pedagogy to avoid this kind of misunderstanding. This Anglo-American term might be the closest meaning to the European concept of didactics. With the term pedagogy, we address the whole "teaching-studying-learning process" in educational institutions that is actualized as "the science and art of teaching".

An important aspect of German Didaktik tradition and pedagogy is that it has both descriptive and normative aspects, science and art of teaching. In descriptive sense, *Didaktik* means science of teaching. It is research on the instructional process in its wholeness: the key actors—teachers and pupils—in institutional educational contexts as well as the relationships between the key actors and processes related to learning, studying and teaching. The descriptive *Didaktik* also informs the instructional practice and normative aspects of it. Pedagogy emphasizes values in teaching-studying-learning process, and they are also important issues in teacher's

planning, action and reflection. This means that education is normative in nature and teachers have important role as moral educators. Regardless of the subject matter or grade level taught, teachers are moral educators. Pedagogy also differs from educational psychology in its context dependency. This has implications to the teaching-studying-learning process which is intentional in nature, and teachers' actions are based on values and purposes, and the whole process is located in educational institution. Moreover, the teachers are educated in established educational programmes, and the studying and learning are guided with curriculum that defines the goals in learning [14, 15].

3.2 Educating instruction and the relationships between teacher and students

Teacher and students, content of instruction as well as the relationships between them mainly contribute on the quality of classroom interaction [16]. Several researchers [17–19] after Herbart have considers the basic elements—teacher, student and content—and relations in the didactical triangle (see **Figure 1**).

In this pedagogical core and context, the *teacher's main role* is to promote student learning. The teacher needs to be capable in terms of the content and student learning, be able to organize lessons, facilitate the interaction and solve challenges in classroom. The teacher also has to be capable in terms of educational aspects. The teacher needs to act intentionally and responsibly in relation to students, their learning and growth, and also as a role model and direction for them [20]. These actions are anchored on the teacher's moral and professional ethics, trust and respect between teacher and students [21], not on exercise of power or authoritarian behaviors. The *student's role* in pedagogical and institutional educational context is defined in relation to the teacher's role. Students are responsible of their own learning and behaviour in the instructional process. In its best, students regulate their own and other's learning by setting goals, striving toward them and evaluating their completion. *Contents* of learning and teaching are in a central position in the instructional process. They concretely encompass the matters included and written in the curricula of educational institutions that students are intended to learn.

The relations between the basic elements in the didactical triangle play an important part in the whole. Naturally, *teachers have relation to curricular contents* they teach. This aspect means especially teachers' mastery of the discipline-specific knowledge and skills explicated in the curricula. Also, *students have relation to curricular contents* they are about to learn. This covers students' attitudes, motivation, conceptions and experiences of curricular themes. This relation is realized in students' content learning [16]. The special qualities of *pedagogical relation between the teacher and student* stem from teacher's and student's roles in the didactical context. Functioning interaction between the teacher and students is necessary for the teaching-studying-learning process and for the best of student learning. The pedagogical relation is asymmetrical by nature in a sense that the teacher being more experienced aims to support students to learn certain capabilities. Pedagogical relationship is always interactive and dialogical, not one-way influencing or forcing a student on learning. The teacher acts altruistically through caring and encouraging students. Pedagogical relationship is always impermanent, and this characterizes the relationship since the beginning. The relationship changes and becomes gradually unnecessary, while students learn, develop and become independent and mature. Related to this aspect, pedagogical relationship is always future oriented. The aim is to support student learning toward the future possibilities and challenges by trusting on student's capabilities and success.

The *didactical relation meaning teacher's relationship to student's relation to content* is the core of the teaching-studying-learning process in the pedagogical core context

(see **Figure 1**). It combines teacher's relation to content and to students and basically describes the teacher's main task in institutional educational context. This relation covers all the actions that the teacher does to promote student learning.

3.3 Pedagogical content knowledge

In Anglo-American tradition, Shulman's [9] framework of the teacher's practical knowledge and especially pedagogical content knowledge has informed and guided research practice related to teachers and teacher education. He suggests that teacher education programmes should combine two knowledge bases to more effectively prepare teachers. These two knowledge bases are content and pedagogy. A crucial aspect of the teachers' knowledge development of how to teach their subject is subject matter knowledge. A second aspect of teacher knowledge is pedagogical knowledge, which goes beyond knowledge of the subject matter per se to the dimension of subject matter for teaching. Pedagogical content knowledge can be called as an amalgam between content knowledge and pedagogical knowledge; it allows teachers to support pupil learning, organize teaching in a pedagogically meaningful way and choose relevant teaching and assessment methods when teaching subject matter. Pedagogical content knowledge is unique to teachers and separates, for example, a science teacher from a scientist. With this knowledge, a teacher can teach a certain context to different learners effectively and with special attributes that help her/him guide a student to understand content in a manner that is personally meaningful [9].

According to Shulman [9], pedagogical content knowledge is an aspect of broader general pedagogical knowledge. General pedagogical knowledge comes close to the German notion of Didaktik, and pedagogical content knowledge comes close to the subject pedagogy or *Fachdidaktik* in German terms. The German researchers of Didaktik have started to use the term "school pedagogy" with which they refer to a broader institutional context of teaching in the school context. Kansanen [23] suggests a possibility of combining the promising aspects of pedagogical content knowledge and *Fachdidaktik* that might lead to new insights in future research.

3.4 Teaching-studying-learning process

The activities that invite students' knowledge construction in school include teachers' teaching and students' studying. Uljens [24] argues that both teaching and studying are intentional activities that are directed to promote students' learning. These activities are, however, not necessary prerequisites for learning; students can learn new things without intentional studying or teaching. In addition, teaching and studying cannot guarantee learning. According to Uljens: "Teaching and studying may thus be called activities supporting individual growth through the process of learning. Learning in itself is therefore a process, among others, through which individual growth is achieved. Competence and changes in one's personality may then be called the results of individual growth [24]".

Interaction between teacher and students, and among students, is fundamental in teaching. According to Husu [25], interaction seems to be important for at least two reasons: first, a certain amount of interaction is necessary so that teachers and students can understand each other and perform their teaching and studying activities. Without this basic interactive understanding, it would be difficult to know whether teaching and studying activities respectively are focusing in the shared aims that both teachers and students intend. Second, teaching and studying methods are interactive to varying degrees. They can be interactive in themselves

(discussion method), or they can allow interaction to a lesser degree (methods of student's individual studying) [25].

Kansanen [26] talks about indirect interaction that includes the pre-interactive and post-interactive phases that both teachers and students need in order to be prepared for the next instructional situation. When the teacher prepares for his/her lessons she/he must consider the previous study history and personal characteristics of the students. Furthermore, she/he must create an appropriate learning environment for heterogeneous group of students. The students, on the other side, must organize their own study schedules and do their homework.

We can conclude that the science and art of teaching can be found in purposeful, holistic, normative and context-dependent nature of teaching. Teaching requires strong subject matter knowledge, knowledge on students and the totality of the teaching-studying-learning process.

3.5 Current pedagogical challenges in basic and higher education

The professional task of the teacher is to create effective, supportive and challenging learning environments in which pupils can learn skills to direct their lives successfully. In this chapter we take a stance that education extends beyond acquiring knowledge or increasing cognitive capacities toward developing the whole person, including emotion, motivation, volition, spirituality and sociality [27, 28]. A current challenge in school pedagogy is to increase the intercultural and ethical sensitivities of students both in basic and higher education to be able to function as global citizens in the world of diverse values and cultures. Students need a clear purpose and goals in their own lives and in their studies to be able to plan their futures with goal direction and moral reflection on their choices beyond themselves. The teacher's task is to provide them encouragement, guidance and opportunities to find their own interests and become engaged both socially in dialog with peers and academically in terms of the learning contents in pedagogically supportive ways [29]. Teaching both in schools and in higher education institutions needs to adapt to the needs of twenty-first century learners and society.

Related to students' academic engagement, there exists a broadening discussion and also concerns about students' well-being both in basic and in higher education [30] that is constructed between students and the various learning contexts and interactions in them [31]. Several studies have identified factors that are related to students' decreased well-being both in basic and in higher education contexts, for example, learning difficulties, study-related burnout [32, 33], experiences of bullying [34–36] and loneliness in peer relations [37, 38]. These concerns encourage to think actively about the factors contributing to students' well-being and especially the structures and pedagogical practices in educational institutions. In the field of positive psychology, a variety of models based on empirical evidence have been constructed to structure the individual and contextual factors related to student well-being. Typically, self-acceptance, positive perceptions about one's own growth and development, conceptions of purpose of one's own life, positive relationships with others, environmental mastery and autonomy have been identified as key factors related to well-being [39–41].

The variety of digital technologies and social media can be used to support learning and stimulate the discussion on different cultures and the values underlying them. Students need to learn the skills in information and communication technology to be able to function as citizens in the twenty-first century. Many countries, for example, Finland has taken an active role in implementing information and communication technology (ICT) in schools and teacher education [42]. In the future vision, Finland is investing in digital teaching and learning and education of

teachers in their pedagogical use. This educational approach is a challenge for many teachers and students. Teachers might lack knowledge and skills to use relevant digital tools and pedagogies related to them to support student learning [43]. Teachers need to be educated for purposeful use of digital tools that includes paying attention to her students' abilities, gender, prior knowledge, motives and expectations to make learning meaningful for them. Students' skills in information and communication technology differ a lot, and teachers need the skills to differentiate teaching in inclusive classrooms [44].

Teachers are facing more diversity than before in their student populations. This will demand high-level ethical and pedagogical skills to cope with these new challenges. With the research-based education and professional ethics, teachers have the potential to meet the challenges of the future. In teacher education we can also identify the need for more education in the moral domain and particularly in moral sensitivities [3]. Teachers are facing more and more challenges due to the rising number of immigrant students and children who have learning difficulties. For example, in Finland, we have had serious problems concerning child welfare and school shooting tragedies that require new educational strategies and help from other professionals [45]. We can conclude that in addition to didactic aspect which is needed to help students improve their learning, teaching has a strong moral dimension, and teachers therefore need the moral competence to identify and solve moral dilemmas in their learning communities.

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