

## Science of Pedagogy: Theory of Educational Discipline and Practice

Irēna Žogla

The University of Latvia, Riga, Latvia  
Rezekne Academy of Technologies, Rēzekne, Latvia

### Abstract

The article addresses and provides an introduction to *pedagogy* in its capacity of science and a university discipline in the field of *education sciences*. Nowadays not only teacher education programmes are embedded in theories and follow transitions of *pedagogy*. These have become even more complex, therefore, challenge new discussions in the evolving importance of human relations and transition towards learning-centred *science of pedagogy* to underpin *practice* of competence-oriented education.

Based on the main historical processes in Latvia and along with informative insight into the practices of European universities and research, the article traces the traditional background of pedagogy, the challenging role of philosophy to foster understanding of *pedagogy* as a unique, well-structured science with its object of investigation, which is not being explored by any other science. Alongside the discrete field of education and constantly evolving research, *pedagogy* develops its theories, all-level practices and disciplines within tertiary and doctoral programmes; because of these its changing nature provides sustainability, cause critique and improvements to an extent which is resilient to multiple external forces.

The article highlights some current developments of *pedagogy* as a stable, open-to-diversity and innovative theory to underpin the process of formal and informal education. The understanding of *pedagogy* in its meaning of teacher *philosophy-in-use* leads to a discussion of the constant and changing components of the definition. The intellectual tradition of *pedagogy* has become a phenomenon and notion to be compared and clarified in the context of another phenomenon – *education sciences*. The conclusions remind therefore the benefit of adopting the *science of pedagogy* being a theory and practice of formal education.

**Keywords:** science of pedagogy, object of investigation, practice of pedagogy, educational studies, education sciences.

The past three decades have been marked by the country's jumping into an unexplored emerging neoliberalism that made stable cultural values meet entirely another system and face a dilemma of altering and defending values or leaving them to be

destroyed. The Latvian government's will is to remove every sign of the previous system on the way to market-driven policies and repeat the traditions of the West countries; "the citation rate and similar indicators currently have very high support from Latvian political decision-makers in education and research, who believe that evaluations based on these measures could help boost the competitive capacity of Latvian scholars on a global scale" (Pipere et al., 2015, 29). This tendency has reduced a part of its constructive power over education – a very sensitive component of the social system, which cannot survive without an appropriate governmental support. The major non-stop reforms forced education to introduce quick solutions and European-like innovations; alongside the progressive lessons learned often elsewhere correct answers have been ill-informed and surface.

Some crucial and speedy changes focused on democratization, knowledge society and competencies appear to be too complicated for un-prepared teachers with some initial vision on how to implement the novel approaches. The characteristic of educational change sits in its strong dependence on sustainable coherence of the whole political, social, economic system. T. Townsend in 2010 (pp. 337–8) reminded A. Toffler's (1971) conclusion on "the 'future shock' to describe the shattering stress and disorientation that we induce in individuals by subjecting them to too much change in too short a time". Latvia's 'future shock' on its way to European space of education alongside uncertainty in global processes and implementation of changes draws teachers into confusion. All this shows signs of a 'post-fact' state of matters when evidence and even arguments are often overleaped in favour of some individuals' positions with 'louder voices'.

EU guidelines for education developments are often interpreted from different perspectives, thus escalating into long-standing debates on the basic approach to the education studies and theories of formal education, which manifests itself in the relationship between *science of pedagogy* and *education sciences*. The real but hardly observable generating mechanisms are guiding human activities alongside actual strategies and these often are difficult to be represented empirically. Consequently, the analysis of these mechanisms and interaction between real, actual and empirical is sensitive in order to explain the results as accurately as possible (Archer, 1995, p. 343). However, a partial, out-of-context and therefore external 'globalization' of the field of education is either inaccessible or remains normative in combination with the cultural context, impedes the work of teachers and the purposefulness of the process. In these mobile situations, a clear theoretical framework is of special importance.

The aim of the article is to highlight the mutual relations between *science of pedagogy* and *education sciences* by providing definition, insight into a comparative exploration, as well as an outline how Latvia has had to accommodate an alternative perspective of *education sciences*.

The dominating method is a theoretical analysis that includes reviewing, analysing and synthesising literature on the theme "in an integrated way such that new frameworks and perspectives on the topic are generated" (Torraco, 2005, p. 356; Hamilton & Torraco, 2013). The theoretical approaches are highlighted by using the statements of the scientists of two groups, those who follow the category of *pedagogy* and those who follow that of *education sciences* to identify overlapping, similarities, differences, and priorities.

### Insight into Historical Developments of Pedagogy in Latvia

Since the establishment of the University of Latvia in 1919, by following the principle of establishing a scientific method through research-based studies, *pedagogy* has been developed as a science and the university discipline. *Pedagogy* being grounded in the cultural context of the nation, European vision on the human holistic development, therefore, implies sustainable pedagogical assistance to the whole learner: body, feelings, creativity of mind and spirit in the process of socialization. Scholars, for instance, A. Dauge remind that the learner since early childhood develops his/her own distinctive general human and individual features – physical, mental and social; it is “a matter of head, hand and heart” (1932).

Pedagogical process therefore as a deliberate process of intentional teaching and learning is “a process for living” (Dewey, 1963); based on specific regularities and theoretical assumptions organised process of education has to mediate the learning and developing persons with their environment. Knowledge of education and educational knowledge are complex phenomena that require integrated and updated understanding of humanities and social sciences, including large components of educational practice with the growing amount of knowledge. Therefore, *pedagogy* is interdisciplinary, it functions as the theory or science and teachers’ professional philosophy, academic discipline and practice, meets the general requirements to achieve educational, developmental and educative goals in their integrated quality; and these are in compliance with the integrity of human’s physical, mental and social nature.

The 20th century theory of action in psychology (Leontyev, 1977) added to Dewey’s ‘learning by doing’ has become fundamental for the development of *pedagogy* in Latvia being:

- a) interpreted from pedagogical perspective assumption that a human being develops all his/her faculties through different kinds of activities (Schukina, 1986);
- b) implemented in didactic assumption that spirits and emotions are the centre of harmonious development (Pētersons, 1930).

The concept of many-sided and harmonious development contributed to *pedagogy*, coupled by understanding that development occurs by changing/improving/empowering learner’s learning as an essential activity; the latter, therefore, must be pedagogically designed, organised, and equipped so that the learner is the subject of his/her activity, development and socialization. Teacher’s assistance, cooperation and communication create an appropriate supportive environment for the learner’s many-sided, harmonious, autonomous learning and better achievements in his/her development with growing amount of knowledge; “pedagogic theory is especially about relationships...” (*Dutch academic*, quoted in Petrie et al., 2006, 23). The nature of human development, actually, does not allow for reducing pedagogy to teaching only. Here we have come to the object of the *science of pedagogy* being constant links between learner, teacher, and the content of activities/learning in often specially organised environments; these links manifest themselves in relationships. Now *pedagogy as science* distinguishes between the object of research to be investigated for better understanding of the practical aim or overarching educative goal of pedagogy as a process of teaching-learning.

The core understanding of the *science of pedagogy* in Latvia has developed by overcoming temporal ‘innovations’ in the cultural context and in the main by recognising

some constant values of the classical European conception of *pedagogy* being incorporated from the following groups of sources:

- Values and pedagogical thought developed through ages being inscribed in multiple folk songs (268,815 verses, registered as *The Cabinet of Dainas*, the UNESCO *Memory of the World*) constitute strong cultural and moral component that manifests itself in common and highly respected human attitudes.
- Long-lasting practices, visions and philosophical views on education demonstrate sustainability in constant innovations and are revealed in *pedagogy* since the first school in the Baltic countries in Riga (1211) and organised teacher education (1683).
- Research related to *pedagogy* since the 17th century accentuated the empirical investigations (Dauge, 1929, 99); the rise of anthropology as a science with *pedagogy* sitting within it (Kron, 2001, 27) has formed research at the University of Latvia in 1919 when it became focussed on the holistic essence of pedagogical process by following the humanistic paradigm with the learner's mental development at the core and the empirical approach which followed the paradigm of the natural sciences; *pedagogy* develops scientific research and research-based studies (Hessens, 1929, 124) mainly by reflecting and investigating practices, creating a scientific method, categorization, and developing other essential features of a science.
- Thanks to long-lasting orientation of *pedagogy* towards philosophy and its search for fundamental background assumptions and theories, academic components developed to become part of *pedagogy* in the 19<sup>th</sup> century (Depaepe, 2002, 363). Philosophy and history have formed the background of many educationists (Husen, 1979); their understanding of *pedagogy* in its theoretical and practical capacity has developed an academic discipline (in tertiary and doctoral programmes); *pedagogy* has stepped beyond just teaching methods to reach the quality of *science of pedagogy* now being a teachers' personal philosophy that manifests itself in their professional behaviours.

Development of *pedagogical practice* follows that of the *science of pedagogy* in the University scholars' research in cooperation with experienced teachers, who have developed theory and pedagogical process with its complex character and traditional culture-oriented education focussed on an individual's overall development as a person (Dauge, 1932). In 1940, the first doctoral theses in *pedagogy* were defended; in 1944 – the Chair of *Pedagogy* was established. Currently four universities run doctoral programmes in *pedagogy* and three universities have councils for promotion in the *science of pedagogy*.

Holistic nature of the *science of pedagogy*, its clear fundamentally grounded and well-structured theories provide sustainability remaining in constant changes – the only well-structured theory is operational in the field of education. This phenomenon in formal and non-formal education became a focus of discussion in the 1950s, and the contribution of *pedagogy* to human development shifted to that of a mindful agent of development in the 1990s (Fägerlind & Saha, 1989). Learning and teaching as the central actions/activities in *pedagogy* foster the learner's, as well as teacher's development by using the subject matter as a pedagogical tool, while teaching and learning being implemented in cooperation and communication open new possibilities for value and attitudinal exchange as an educative goal. Teachers, or even parents, can hardly influence the learners' views, values, and ideals in a direct way; rather the values coming from the

external sphere can be facilitated and fostered through the learner's actions and communication and by targeted and meaningful development of the learners' self-conducted action. This conception underpins the learner's position of a subject of his/her activities and teacher assistant's role that manifests itself in a transition from learner-centeredness to learner's learning-centeredness. The latter emphasises learner's action/activity/learning being an object of teachers' developmental assistance, which if coupled with respecting learner's individual qualities enables his/her meaningful learning-by-doing (intellectual of physical).

Currently a complex understanding of *pedagogy* is not limited by European borders. The Gordon's Commission in the USA affirms an integrative understanding: "...pedagogy... the central mechanism operative in education... is interactively and transformatively inclusive of assessment, teaching, and learning" (The Gordon Commission, 2012, 1). Distinguishing between the *science of pedagogy* and the *practice of pedagogy* avoids reducing pedagogy to methods of teaching, leads to integrity and educative value of deliberate education in both aspects – as a process and as learner's achievements; this also strengthens the background for pedagogy as a *university discipline*. Lost integrity functions as an obstacle for achieving competencies; these are complex in their nature. Competence-oriented education in organised (formal or non-formal) processes does need clear, stable and strong theoretical background that is provided by the *science of pedagogy*. The latter in Latvia has developed all basic components to function in a capacity of a science and university discipline, it has attributes which need not be borrowed from other sciences (Gudjons, 1995, 33–35). Research is also being successfully developed for this specific area (Pipere et al., 2015).

### Understanding Science of Pedagogy

The development of the *science of pedagogy* as a European intellectual tradition has been long and saturated; it has been interrupted by entering of the notion of *education sciences* being a tradition of the Anglophone countries; this reminds that societies live in transmission and education – in constant transformation. Political changes in the early 1990s triggered discussions over the paradigms of education, the essence of *pedagogy* and *education sciences*. It is worth reminding that discussions usually aim at more relevant definitions of the phenomena being discussed. By that time *pedagogy* had already been defined to a certain extent, by accentuating its practical component while *education sciences* are still waiting to be appropriately defined. Several research projects had been supported by the Latvian Council of Sciences and publications released, among them also in the issues by the Academy of Sciences. Here are some of these: pedagogical regularities (Žogla, 1995, 8–10), considerations on the definition and object of pedagogical science (Čehlova & Špona, 2000, 96–98; Žogla, 2000, 20–25); research and sub-branches of pedagogy (Kopeloviča & Žukovs, 2001, 17–19); the definition and state of matters reported at the Department of Humanities and Social Sciences of the Latvian Academy of Sciences (Žogla, October, 2005). A challenging participation in a project on educational studies (2014–2017) conducted by Oxford and London Universities (see: Whitty & Furlong (Eds.), 2017) raised the intellectual tradition of Latvia to a world-class discussion on the essence of *pedagogy* in its three capacities: science, practice and discipline.

Over the past decades, attention to *pedagogy* has been noticeable, and this is evidence of its growing importance and a need to understand the well-structured theory operating in the discrete field of education. Different visions meet by “approaching the notion of *pedagogy* from very different perspectives and conceptual standings” (Waring & Evans, 2015, 26–27): the science, craft and art (Pollard, 2010, 5); “the science of teaching” (Watkins & Mortimore, 1999), “dynamic process, informed by theories” (Leach & Moon, 2008, 6), “multiple interactions which we call *instructional dynamics* – a defining feature of education” (Ball & Forzani, 2007, 529–540).

Recently a wider understanding of *pedagogy* appears in the Anglophone countries, and this inspires, as well as helps describe the understanding, in which neither teaching nor learning alone cover the term *pedagogy*, especially the *science of pedagogy* with its vast and complicated field of investigation. There is a promising comment that “in terms of its European traditions pedagogy entails more than just teaching”, it ... “involves two aspects of learning. The first is associated with what and how students are learning; the second is about the teacher as a learner. Thinking about pedagogy in this way helps to highlight teaching as an educative process for both partners in their relationship rather than a set of technical skills” (Loughran, 2010, 36–37). The Thomas Coram Research Unit of London University investigates pedagogy and argues that children and young people are being seen as persons in their own right, rather than as ‘problems’ to be managed (Petrie et al., 2009, 3–4).

*Pedagogy as practice* appears when two people with entirely different actions, these of learning and teaching are involved by the program/curriculum; *pedagogy as science* and its theoretical framework are needed to create a coherent process that is adjusted to the learners’ needs. Teachers and learners follow different aims and motives, use different background knowledge and tools, and still their attempts have to be met. This ‘joint venture’ allows for transitions from a normative to a learner learning-centred process with the learners’ meaningful participation in creating, conducting and evaluating the process where the learner has to achieve; that is leading to learners’ autonomy in learning and development, as well as to teachers’, learners’, parents’ and other stakeholders’ overcoming the growing complexity and transferring their way of thinking. Only specialists identify that real accomplishments of a pedagogical professional philosophy towards humanistic process, as well as objectives and tools chosen by teachers and adopted by learners appear when the formal *inclusion* of the both grows into a meaningful *engagement*.

Learners’ engagement in classroom and school, university or kindergarten settings with organised cooperation and communication happens when teacher’s assistance actualises the learners’ need for significant activities to accomplish assignments or chosen activities, when *academic goals* obtain meaning for learners and they *achieve* new or improve their personal qualities; here sits the object of the *science of pedagogy* to create adequate mutual relations that initiate a transition in teacher and learner understanding from rather generalised *outcome-oriented* process to learner *achievement-oriented* pedagogy.

In the Latvian traditions, the *practice of pedagogy* creates and the *science of pedagogy* investigates *inner dynamic links* between teacher, learner and the content in social, deliberately organised integrative settings where teacher’s and learner’s activities and communication are mutually dependent, their orchestrated actions and communication lead to the learner’s autonomy. Teacher’s and learner’s reflection and self-evaluation add to the achievements of the both, as well as to the educative value of the process.



Research, therefore, attempts to detect pedagogical regularities in diverse settings and confront the criteria that confirm the constants, find not only a synthesis between *pedagogy* and the ever-changing disciplines that relate to it, but also to transform or translate the theoretical assumptions of these disciplines into pedagogical notions when two responsible people, the teacher and learner, analyse, co-construct the pedagogical process and co-operate on a basis of solidarity (Klafki, 1990, 95).

Debates and disagreements over the form, content, and control of educational knowledge are central to understanding the discipline (Furlong, 2013); the new teacher education “rests on a multidisciplinary theoretical framework...” (Cochran-Smith, 2005, 3); it exists in transitions and therefore needs a key juncture. All this knowledge and understanding, pedagogical professional thinking and the ability to operate professionally should be learned by teacher students; the essence of a quality *university discipline* exists in a research-based transition from *acquiring the profession* to a self-directed *creating of professional competencies*.

J. J. Piaget’s and L. Vygotsky’s theories have been well-known since the 1930s and used to underpin the investigations towards understanding the *practice* and *science of pedagogy*. The theory of the ‘zone of proximal development’ was especially productive for *pedagogy* as a teacher’s philosophy-in-use: learning always precedes development and ‘pulls along’ the learner’s experience (Vygotsky, 1978). This concept highlights where the learner’s autonomous learning slows down due to his/her limited possibilities and how assistance can speed it up, empowering further learning by addressing his/her experience, preserving its developmental and motivating value, and by doing so creating the dynamic links within a pedagogical process. These links are needed for personalization of the process and self-regulation that leads to learner’s holistic development.

Teachers usually in classrooms and pedagogues in other social settings provide pedagogical provision by following the same pedagogical regularities; therefore, the *science of pedagogy* that underpins the *practices of pedagogy* should be considered common for teachers, pedagogues and other professionals in the sphere of organised education. Therefore, pedagogy as a *university discipline* can be found in programmes, for instance, of nurses and doctors. *Practice of pedagogy* is sensitive towards diversity and commonalities in human development; therefore, common theoretical assumptions and practical strategies are adjusted to the current needs of the learners, peculiarities of the situation and new possibilities, like those of IT, commonalities become individually different and manifest themselves in learner’s activities. Therefore, four sub-systems of digitally mediated action (Blayone, 2018) are considered relevant:

- a) relating to building and maintaining *human-machine pairings* – meta-functional, technical and operational;
- b) *mediating cultural expression* addresses internalization and externalization largely determined by rules and values of participating communities;
- c) *automatization of actions* by reducing them to formal procedures (algorithms) run by a machine;
- d) the most complex sub-system addresses *digitally-mediated collaboration*.

This novelty needs to be pedagogically equipped in its three capacities – theory, practice, university discipline by undergoing further transition from individualization of organised pedagogical processes to personalized ones.

Meanwhile, discrete notion of *education sciences* occupies a large area of human activities; and only pedagogy and educational management are developed in the capacity

of science. Besides, the *science of pedagogy* (theory and practice of formal education) cannot be fully identified with the *education sciences*, since it can only be one of these; the term of *education sciences* is too often used in limited aspects and outside scientific contexts. For instance, the government's regulations mix up these two categories within one and the same document (Saeima, 1999, 2012). The government also points to the growing dominance of PISA as a powerful tool:

- a) to initiate and justify the educational developments by comparing figures related to education;
- b) to use its technical capacity for the national indicators for benchmarking and initiating further educational changes. PISA and OECD projects are conducted in Latvia under the title of *Education Sciences*; these investigations are highly informative and seldom produce theories, at least by projects conducted in this country.

If compared to other fields of human activities, methods or strategies of pedagogy cannot be precisely repeated even in similar situations. This leads to the opinion that *pedagogy* is an art. In these cases understanding of theories and constant regularities are helpful. Multiple meanings and nuances of situation-dependent pedagogical actions, being based on complex knowledge, ceases when these no longer make sense to the learner and why interaction between learners and between learners and teachers stops (Hörster, 1998, 35–36). Teacher's action consists of the mediation between the proper configuration of subject content and the structured learning activities which the teacher has designed for the learners (Jank & Meyer, 1994, 81) leaving space for the learners' self-evaluation and autonomous choice.

To conclude on the core features of pedagogy, D. Bell's assumption seems to be very relevant: Typically, transformational pedagogy is seen to include the following features: action-oriented; inquiry-based and systems-based learning; integrated, holistic approaches; creative use of technology (2016, 52).

The following definitions reflect an understanding of *science* and *practice of pedagogy* and are suggested for discussion:

*Pedagogy is an integrated humanistic and social science which investigates regularities of combined and unique, focused on the content of learning interactions, communication and mutual relations that occur in this process and constitute a specific research object.*

*Pedagogical practice is mainly represented by organized pedagogical processes which are created on the background of pedagogical theories and specifically aim at achieving an educative goal (audzināšana). Realisation of this deliberate goal occurs through internal, dynamic connections activated by targeted, organised, goal-oriented educational processes, which transform mankind's intellectual and cultural values into the meaningful educational, developmental and educative content to facilitate the acquisition of these values by participants of the process and to foster their personal development and self-actualisation (first published in Źogla, 2017).*

*Science of pedagogy* constitutes teacher's philosophy-in-use (Hessens, 1929) and manifests itself in *practice of pedagogy*. Teachers like any other professionals have to cover their *university discipline*, and that is science and practice of pedagogy – the theoretical background for teachers' pedagogical thinking and creating their professional



competence. The core functions of the *university discipline* usually represented by a cluster of study subjects are as follows:

- a) to provide students with possibilities of creating teacher's strategic knowledge; understanding of the essence and development of humans lead to pedagogical regularities for appropriate integrating teaching, learning and the subject-matter/content and initiating a congruent pedagogical process towards the learners' engagement in the highest quality of learning together;
- b) to develop students' ability of selecting appropriate pedagogical tools adopted by learners; these address and challenge the learners' diverse and developing needs in changing situations, growing amount of knowledge and possibilities provided by the digital environment;
- c) to facilitate teacher's professional integrity and identity that manifest themselves in building relationships on the foundation of communication and collaboration with the learners by treating them as a whole developing person.

### Education Sciences and Pedagogy Compared

The term of *education sciences* continues occupying the space of education, especially when new documents are being prepared. Actually, these make a variable group of related to education sciences, as well as selected parts of sciences transformed or otherwise modified for the learners' needs (for inst., anatomy is of special interest of sports coaches, history of music – for singers etc.). The group is changeable, and *education sciences* can be classified according to their relations to the process of obtaining education:

1. *Pedagogy* – theory and practice of formal and non-formal (organised) education. It has developed general pedagogy and its sub-branches with two common essential features: (a) the object of investigation is dynamic links between the learners, teachers and the subject-matter with teacher-learner mutual relations in the centre; (b) the data are analysed according to pedagogical criteria, which are denoted by the dynamic links. *Science* and *practice of pedagogy* exist and develop by elaborating its theory, methodology, profession and tertiary programmes, rigorous scientific method of investigations, international cooperation of professionals and research, professional working area, history, tertiary educational institutions to obtain professions, discipline of universities and colleges.
2. Essential parts of *pedagogy*, especially in Anglophone countries are considered *Education Sciences* – lesson planning, lesson design, strategies/methods of teaching, evaluation etc. These items can be investigated and appropriate object of research defined, but they will have lost their value if not related to the pedagogical process as a whole: target, learners' and teachers' activities, mutual relations, priority of self-evaluation and achievements – all what the *science of pedagogy* deals with as philosophy-in-use, as well as investigates the educational process as a system.
3. Pedagogical disciplines related to the pedagogical process, contextualized or integrated in the *science* and *practice of pedagogy* constitute the core part of teacher educational programmes, including those that aim at working with learners with different special needs and specialised goals.

4. *Education sciences* consider and incorporate many other sciences, which in a way are related to some important areas of education, for instance, educational psychology, education policy, educational philosophy etc. Actually, these branches of sciences investigate their specific object located in the area of education and analyse data according to their specific criteria. These can only inform pedagogy and the field of education about some of its contexts, but will never solve specific for pedagogy problems or those of the process of obtaining education, therefore, will never function instead of pedagogy be it a science, practice or academic discipline.
5. Targeted branches of sciences or technique which are acquired by the learners in an organised process by using specific methods of teaching-learning belong to the *subject didactics* (by non-professionals often hastily considered as an old-fashioned notion). Any branch of sciences – be it literature, biology or any other – whether offered to learners authentic or transformed into a subject matter for their acquisition (transformed according to stable and developing didactic principles into the content to be learned) become a pedagogical/didactic reality and category and add to the learning content. Thus, other sciences and practices designed as a formal setting for the learners' knowledge creation, development of skills and attitudes can be called *education sciences*. In reality, these sciences being transformed to learning/study content are thus turned into a pedagogic category of content and become a component of a pedagogical/didactic process.
6. *Context sciences* are also transformed and integrated into the aims, content, methods/strategies, evaluation and therefore belong to the process of teaching-learning or *practice of pedagogy* (for instance, history, economy, literature etc.). Their functions within the programme are denoted by their relations to the target academic education or degree and/or qualification being obtained by students. Curricula or programmes are comprised of many branches of sciences and technique to be acquired, they belong to the content and cannot be called *education sciences*; these simply cannot be in this capacity without pedagogical modifications.

### Instead of Conclusion: Why Adopting Pedagogy

*Pedagogy* – science, practice and discipline – has been developed as a holistic, personalised system to assist learners or work with children, young and even elderly people (also called *Andragogy*) in formal and non-formal educational settings in the majority of European countries – Germany, Austria, Poland, Greece, Scandinavian countries etc. A pedagogue's ability of generalising and adjusting interventions is popular also for enterprises: the *science of pedagogy* provides an overarching system that could bring greater coherence to educational services. It provides a framework for discussing and adopting aims, activities and evaluation of achievements for learners at any age as it deals with general constant regularities of a pedagogical process.

Qualifications and degrees in pedagogy are popular due to its clear structure and system of theories being in non-stop research-based development; the graduates report their acceptance of pedagogy in European countries in different spheres where relations among people dominate as a value for their pedagogical skills that make them well-

equipped, flexible and stable workforce across a wide range of services, as well as governmental and non-governmental institutions (mentors for novices or refugees, nurses, trainers, couches etc.). Pedagogy has the potential for an inclusive, integrating and engaging approach due to its core functions and clear internal system of notions, which allows for coherent mutually related actions of teaching and learning based on communication, cooperation and mutual relations. Inner constant regularities of a pedagogical process provide congruency that is among the basic criteria for research, action-based and process-orientated educational provision; the background theories of humanities allow for value exchange.

### References

- Archer, M. (1995). *Realist social theory: the morphogenetic approach*. Cambridge: Cambridge University Press.
- The Gordon Commission on the Future of Assessment in Education. (2012). *Assessment, Teaching, and Learning*, 2(1)1.
- Ball, D. L., & Forzani, F. M. (2007). Wallace foundation distinguished lecture: What makes education research “educational”? *Educational Researcher*, 36(9), 529–540.
- Bell, D. V. J. (2016). Twenty-first century education: Transformative education for sustainability and responsible citizenship. *Journal of Teacher Education for Sustainability*, 18(1), 48–56. DOI: <https://doi.org/10.1515/jtes-2016-0004>
- Blayone, T. (2017). Theorizing effective uses of digital technology with activity theory. (Unpublished article).
- Cochran-Smith, M. (2005). Teacher educators as researchers: Multiple perspectives, *Teaching and Teacher Education*, 21(2), 219–225.
- Čehlova, Z., & Špona, A. (2000). Pedagoģijas zinātnes priekšmeta būtība. [The essence of research object in science of pedagogy]. *Latvijas Zinātņu Akadēmijas Vēstis* [News of the Latvian Academy of Sciences], 54(1–2), 96–98.
- Dauge, A. (1929). Pedagogy and psychology (Published in Latvian: Dauge, A. *Paidagoģija un psiholoģija*). *Audzinātājs* [Educator], 4, 99.
- Dauge, A. (1932). *Vispārīgā paidagoģija*: Latvijas Universitātē lasāmo lekciju kurss. Rokraksta vietā. [Generic pedagogy: The course delivered at the University of Latvia].
- Depaepe, M. (2002). The practical and professional relevance of educational research and pedagogical knowledge from the perspective of history: Reflection on the Belgian case in its international background. *European Educational Research Journal*, 1(2), 363.
- Dewey, J. (1963). *Experience and Education*. New York: Collier Books. [First published in 1938].
- Fägerlind, I., & Saha, L. J. (1989). *Education and national development: A comparative perspective*, 2<sup>nd</sup> edit. Oxford: Pergamon Press.
- Furlong J. (2013). *Education – an anatomy of the discipline*. London & New York: Routledge.
- Gudjons, H. (1995). *Educational background*. 4<sup>th</sup> edit. (Published in German: Gudjons, H. *Pädagogisches Grundwissen*. 4. Auflage.). Julius Klinghardt Verlag.
- Hamilton, D. W., & Torracco, R. J. (2013). Integrative review of the literature on adults with limited education and skills and the implications for human resource develop-

- ment. *Human Resource Development Review*, 12(3), 308–328. doi: 10.1177/1534484312471135
- Hessens, S. (1929). *Paidagoģikas pamati: Ievads lietājamā filozofijā*. [Fundamentals of pedagogy: Introduction to philosophy-in-use]. Rīga: O. Berga izdevniecība.
- Hörster, R. (1998). Pedagogic action. (Published in German: Hörster, R. Paedagogisches Handeln.). // Krueger, H.-H. & Helsper, W. (Eds.), *Introduction to basic concepts and basic questions of educational science*. (Published in German: Krueger, H. H. & Helsper, W. (Hrsg.), *Einführung in Grundbegriffe und Grundfragen der Erziehungswissenschaft*.). Germany: Opladen, Leske+Budrich.
- Husen, T. (1979). General theories in education: A twenty-five year perspectives. *International Review of Education*, 25(2–3), 325–345.
- Jank, W., & Meyer, H. (1994). *Didactic Models*. (Published in German: Jank, W., & Meyer, H. *Didaktische Modelle*.). Berlin: Cornelsen Verlag Scriptor GmbH & Co. KG.
- Klafki, W. (1990). Farewell to the enlightenment? Fundamentals of an educational theoretical counter-proposal. (Published in German: Klafki, W. *Abschied von der Aufklärung? Grundzüge eines Bildungstheoretischen Gegenentwurfs?*). // Krüger, H.-H. (Hg). (1994). *Farewell to the enlightenment?* (Published in German: *Abschied von der Aufklärung?*). Opladen, 91–104.
- Kopeloviča, A., & Žukovs, L. (2001). Pedagoģijas zinātnes priekšmets un apakšnozares. [Object of pedagogy as a science and its sub-branches]. *Latvijas Zinātņu Akadēmijas Vēstis [News of the Latvian Academy of Sciences]*, 55(1./2.), 17–19.
- Kron, F. W. (2001). *Grundwissen Paedagogik*. [Basics of pedagogy]. Munchen, Basel: Ernst Reinhardt Verlag.
- Leach, J., & Moon, B. (Eds) (1999). *Learners and pedagogy*. London: Sage.
- Leontyev, A. N. (1977). *Action, Consciousness, Personality*. (Published in Russian: Леонтьев, А. Н. *Деятельность. Сознание. Личность*: Учебное пособие.). Москва: Политиздат. 2<sup>nd</sup> edit.
- Loughran, J. (2010). *What expert teachers do?* Enhancing professional knowledge for classroom practice. Routledge, London & New York.
- Pētersons, E. (1930). *General didactics*. (Published in Latvian: Pētersons, E. *Vispārīgā didaktika*.). Rīga: Gulbja izdevniecība.
- Petrie, P., Boddy, J., Cameron, C., Simon, A., & Wigfall, V. (2006). Working with children in residential care: European perspectives. Buckingham, Open University Press.
- Petrie, P., Boddy, J., Cameron, C., Heptinstall, E., McQuail, S., Simon, A., & Wigfall, V. (2009). *European models for practice, training, education and qualification*. Briefing Paper. Thomas Coram Research Unit, Institute of Education, University of London. <https://core.ac.uk/download/pdf/82095.pdf>
- Pipere, A., Veisson, M., & Salite, I. (2015). Developing research in teacher education for sustainability: UN DESD via the Journal of Teacher Education for Sustainability. *Journal of Teacher Education for Sustainability*, 17(2), 5–43. <https://doi.org/10.1515/jtes-2015-0009>
- Pollard, A. (Ed). (2010). *Professionalism and pedagogy: A contemporary opportunity. A commentary by TLRP and GICE*. London: TLRP. <<http://www.tlrp.org/pub/documents/TLRPGTCEProf...>>. Assessed 11.05.2016.

- Saeima. (1999). *Vispārējās izglītības likums*. [Law of comprehensive education]. (1998). *Izglītības likums*. [Law of Education]. (1995). *Augstskolu likums*. [Law of tertiary institutions]. <http://likumi.lv/doc.php?id=50759>. Assessed 12.12.2015.
- Saeima. (2010). *Paziņojums par Latvijas ilgtspējīgas attīstības stratēģijas līdz 2030. gadam apstiprināšanu*. [Sustainable development of Latvia till 2030]. *Latvijas Vēstnesis*, 101(4293), 29.06.2010. Assessed 12.12.2015.
- Schukina, G. I. (1986). *The role of action in the process of teaching-learning*. (Published in Russian: Щукина, Г. И. *Роль деятельности в учебном процессе*.) Москва: Просвещение.
- Townsend, T. (2010). Educating school leaders to think and act both locally and globally, *International Journal of Leadership in Education*, 13 (3), 335–348.
- Toffler, A. (1971). *Future Shock*. New York: Bantam.
- Torraco, R. J. (2005). Writing integrative literature reviews guidelines and examples. *Human Resource Development Review*, 4, 356–367.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Watkins, C., & Mortimore, P. (1999). Pedagogy: What do we know? In Mortimore, P. (Ed.), *Understanding pedagogy and its impact on learning* (pp. 1–19). London: Paul Chapman Publishing.
- Waring, M., & Evans, C. (2015). *Understanding pedagogy: Developing a critical approach to teaching and learning*. Routledge, London & New York.
- Whitty, G., & Furlong, J. (Eds.). (2017). Knowledge and the study of education – an international exploration. *Oxford Studies in Comparative Education*, 27(1). Symposium Books. ISSN 0961-2149.
- Žogla, I. (2017). *Pedagoģija* and educational sciences: Competing traditions in the study of education in Latvia. In Whitty, G., & Furlong, J. (Eds.). (2017). Knowledge and the study of education – an international exploration. *Oxford Studies in Comparative Education*. 27(1), 101–121. Symposium Books.
- Žogla, I. (1995). Skolas pedagoģija. *Skolotājs* [School pedagogy. Teacher], 5, 8–10.
- Žogla, I. (2000). Didaktikas teorijas un jēdzieni: salīdzinošais aspekts. [Theories and terminology of didactics compared]. *Latvijas Zinātņu Akadēmijas Vēstis* [News of the Latvian Academy of Sciences], 55(1./2.), (612./613.), 20.–25.

Correspondence concerning this paper should be addressed to Irēna Žogla, Dr.habil.paed., senior researcher of the Research Institute of Regional Studies, Rezekne Academy of Technologies, Atbrīvošanas aleja, 115, Rēzekne, Latvia, LV-4601. Email: irena.zogla@lu.lv