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Teacher's Expertise in the Context of Didactic Paradigms' Multifariousness

Anyone who wants to participate in an educational change to prepare schools for the 21st century should set the following goals:

- 1) become an expert in learning;*
- 2) understand what the change is about; [...]*
- 5) look inside yourself, look around and look forward to see the whole picture, and above all, take action to improve results [...]*

(Mazurkiewicz, 2012)

ABSTRACT

Many professions have some identified features or performance rules that are considered characteristic of an expert. However the standards and expectations regarding teachers' work might not have been clear to the majority of the teachers. The attributes that are demanded or expected from teachers are very diversified and span many fields of expertise. One of the reasons behind it may be the co-existence of multiple paradigms in the social sciences. Those paradigms cannot be applied simultaneously since the disparities between them are often insurmountable. Yet they define the role of a teacher and hence are crucial to the assertion of expertise in teaching. Therefore I come to the conclusion that understanding paradigms and their consequences for the role of a teacher may provide the necessary criteria of performance and a path to becoming an expert teacher. Without the knowledge and understanding of the basic concepts and the meaning of what it is that the teacher is trying to achieve through their performance, the teacher will not be able to work deliberately on their development or to critically reflect on it.

Keywords:

expert teacher, expertise in pedagogy, teachers' professional development, didactic paradigms, self-efficacy, self-awareness

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INTRODUCTION – ON THE IMPORTANCE OF PARADIGMS IN ACHIEVING THE EXPERTISE IN TEACHING

Being an expert is often identified with success, which for many people is the equivalent of happiness. Recent rhetoric focusing on the deliberate effort or practice² provides an assumption that the success is entirely dependent on the individual. A similar belief has been shown to exist among Polish teachers in a research conducted by Szempruch (2016), in which teachers were generally convinced that the effects of their actions depended on them and on their efforts. The same research also showed that half of the responding teachers were convinced that they had to achieve mastery in their profession. However those teachers set high and unrealistic standards for themselves and others and were destined to be disappointed as a result (Szempruch, 2016, p. 142). The question that intrigued me was whether the dissatisfaction could also have been attributed in part to the fact that the standards and expectations regarding teachers' work might not have been clear to the majority of the teachers.

Many professions have some identified features or rules of performing that are regarded as expert. The question arises whether the profession of teaching has such indicators? If it does, teachers could follow them in order to become 'expert' level teachers. This is crucial when considering how fragile this profession is in many countries, including Poland. The educational reforms in Poland did not provide any time for reflection and consideration as to what it means to educate, teach, or learn; what the position of the teacher, student, parent or principal is, what the teaching goals are and how a teacher can tell whether they succeeded at their job or not. Those are all very important questions that are crucial for estimating expertise and one's success in achieving it.

Poland is in a constant time of changing its educational landscape and one has to wonder whether teachers have a chance at understanding new approaches³ and implementing them in practice, in an efficacious way. Especially when taking into account the miscommunication or rather a misunderstanding of the basic concepts that laid the foundations of the education process. In the past purposefulness, politically determined goals and the pressure for results shaped the understanding of what it meant to educate. The biggest change in recent times probably regarded the understanding of what it meant to teach and to learn. Paradigms shifted and so did some of the staple definitions. What may be unclear to some is that different

2 Named as such by Ericsson, Krampe, & Tesch-Roemer (1993) and popularized by Ericsson & Pool (2016).

3 That built on top of the old schemes of the roles of the teachers.

paradigms not only use different approaches but – more importantly – they may use similar vocabulary with a completely different meaning (Klus-Stańska, 2018). Each paradigm sees teachers in a different role and demands different actions or approaches from them. How are teachers supposed to know which one is right without understanding⁴ who they really are, or are supposed to be, as teachers?

THE DIVERSITY OF THE ROLES WITHIN THE TEACHING PROFESSION AND THE MULTIDIMENSIONALITY OF THE CONCEPT OF TEACHING

The attributes that are demanded or expected from teachers are very diversified and range across many fields of expertise from a caretaker, a manager, to a psychologist.⁵ They all depend on the role that a particular culture, group or local community deems appropriate for a teacher. Depending on such a role the criteria of expertise differ as well. The science of expertise developed mostly in the areas of chess, sports and music precisely because those areas had well developed sets of rules guiding the performance of its professionals, providing a reference point for the practice and training as well as clear verification of the results.⁶

The problem with teacher profession becomes apparent when we realise that it is not even possible to define the concept of teaching without first referring to the didactic paradigm. For many years in Poland the prevailing understanding of teaching involved teacher's control over the time, the space, the communication, and the image (Kawecki, 1996, 2003). In order to be effective, the teacher believed they must govern, direct and manage the learning process.⁷ Now many of those teachers learn to run projects, work on activating students agency and motiva-

4 The differences in language are of vital importance as without proper introduction and explanation they will be replaced with the common understanding predominant in a particular culture, local community or school.

5 Or from a gardener, lighthouse to circus director as in: Poom-Valickis, Oder, & Lepik (2012).

6 See: Ericsson et al. (2006).

7 Okoń defined teaching [in Polish: *nauczanie*] as “planned and systematic work of a teacher with students, consisting of evoking and perpetuating changes in their knowledge, dispositions, behaviour and their whole personality [...]” (Okoń, 2001, p. 254). He also acknowledged that the concept of educating was one of the least defined in pedagogy (Okoń, 2001, p. 190). Hejnicka-Bezwińska added a modern definition to the traditional one: “Teaching: 1) in the traditional sense – planned and systematic teacher’s work with the student, aimed at providing him with data, information and knowledge and shaping relevant cognitive competences covered by the specific teaching program; 2) in the modern meaning – creating pupils opportunity to learn” (Hejnicka-Bezwińska, 2008, p. 490).

tion and implement many other new approaches. It may well be that having tried and failed at combining elements that do not belong together, many teachers have come to a conclusion that they do not have time for innovations.

The role of a teacher is perceived differently⁸ not only by different participants of the education process (e.g., government officials, principals, parents, or student) but it also depends on the type of school the teacher is in, their grade level,⁹ region and subject they teach.¹⁰ Different skills associated with each role will also constitute the criteria of expertise. These criteria of performance may regard its smallest aspects, like the physical position of a teacher in a classroom or in relation to a student. The Montessori approach to education, for example, requires a teacher to be at a student's level at all times, being it in a circle, by the rug or at a table.

The diversity of teacher's roles is even more complicated in Poland due to a mythical or mission-like approach towards this profession.¹¹ When writing about the excellence of a teacher, their personality characteristics, passion, love for children, personal traits and pedagogical talent are often highlighted (Lasota & Piszczowska, 2016; Nowak-Dziemianowicz, 2001, 2012). When combined, these traits and knowledge¹² amount to a superhero type of a person.¹³ Considering, what constitutes the next chapter, that the expertise is domain-specific and takes considerable time to acquire, it seems crucial to reflect upon whether it is even possible to achieve the required (yet still unspecific) level of professionalism in a lifetime.

8 Nowak-Dziemianowicz, for example, distinguishes: a guide, a translator, reflective practitioner, researcher, emancipated teacher, intellectual, animator, manipulator and actor, listing a wide range of types of knowledge and competences accompanying all these roles (Nowak-Dziemianowicz, 2001, pp. 21–57).

9 Which – considering the last reform that changed the school educational levels removing the gymnasia – makes it even more complicated when we consider that many teachers were forced to switch the educational levels, moving from a gymnasium to a lyceum or elementary school.

10 The influence of general culture and the shifts of the understanding of particular vocabulary within the country, the school district, the local environment and the particular school are often associated with a specific paradigm accepted in the particular time and space – it is a well-known concept defined as macro-, mezzo- and micro-scale of cultural influences.

11 See the articles in the publication: Rudnicki, Kutrowska, & Nowak-Dziemianowicz (2008).

12 See the aspects of professional competence of teachers, such as pedagogical content knowledge, professional beliefs, work-related motivation, and self-regulation, investigated by Kunter et al. (2013).

13 E.g., desirable personality traits, such as empathy, caring, openness to others or the ability to make contact, substantive preparation for the profession including the knowledge about the child's development, willingness to get to know the child and to self-improve, responsibility, sense of duty, moral courage, and many more. Ministry standards list general results of learning for teachers in the area of knowledge, skills and social competences.

WHAT IT MEANS TO BE AN EXPERT TEACHER

The attributes expected from a teacher are very diverse and often regard personal characteristics, expecting the teacher to enter the profession with passion and a certain psycho-physiological disposition (Lasota & Piszczowska, 2016). They demand self-development, including emotional intelligence, ability to cooperate with colleagues, experience in working in a different context or country (Hargreaves, 2003) yet rely on innate (pedagogical) talent, referring to such qualities of a teacher like the love for people right next to self-confidence, calmness, courage, or uncompromising attitude, among many others (Adamowicz, 2018, p. 31). The common understanding often suggests a necessity for a vocation in order to perform the profession well.

This range of qualities corresponds with the vast research in the area of science of expertise. The talent versus practice dichotomy has been present in that research for a long time.¹⁴ Though in the recent 20 years the balance seems to be tilting towards practice and deliberate effort,¹⁵ still the aspect of talent, personality and chance are important for the achievement of greatness.¹⁶ What has changed considerably though are the specifics gained through multiple years of research on the types of practices (focused, directed and deliberate) a person must undertake in order to achieve expert levels of performance. This type of deliberate practice (Ericsson, Krampe, & Tesch-Roemer, 1993) requires, among others, very specific and detailed knowledge on the expected results and the criteria to determine one's own level of performance.

The definitions of what it means to be an expert are multiple. "In research papers, expertise is often defined using experience and the amount of time an individual has spent in a domain" (Gobet, 2016, p. 2). Hoffman (1996) draws attention to the difficulty in defining experts in certain areas of performance.¹⁷ Nęcka defined an expert as "a person with extensive knowledge, although limited to the chosen field, and also very well ordered, processed and able to be used thanks to general schemes

14 See: Heller et al. (2000), Ericsson et al. (2006), or Gobet (2016). The word genius for example was once the only term describing the level of professionalism that is now called expertise. Mozart was never called an expert, even though he often highlighted the amount of work and effort that he had to put in to achieve his greatness.

15 Especially in the popular science books such as: *Peak* by A. Ericsson, *The Talent Code* by D. Coyle, *Bounce* by M. Syed, *The Sports Gene* by D. Epstein, *Talent Is Overrated* by G. Colvin, or *The Genius in All of Us* by D. Shenk.

16 See the Munich Model of Giftedness, Gagné's Differentiated Model of Giftedness and Talent, or the Process (Dynamic) Model of Giftedness by Ziegler and Perleth.

17 Experts can also be defined through diplomas or ratings (e.g., Elo or ATP).

of performance” (Nęcka, Orzechowski, & Szymura, 2006, p. 633). The definitions are usually contextualized, as expertise is domain-specific.¹⁸ The research of expertise in teaching¹⁹ started to develop when new methods and findings from cognitive psychology emerged. Different stages of development from a novice to an expert teacher were suggested (Tsui, 2003; Berliner, 2004). It was often noted that teachers' position is unique because they have almost no contact with other adults (possible experts) while performing their job.²⁰ According to Berliner (2004), in order to become an expert teacher, the non-expert one requires some sort of supervision, an over-study with an expert coach, to deliberately work on their excellence.

Experts are people with exceptionally developed knowledge and experience in a given field, performing their tasks at the highest level. Teachers however have multiple standards imposed by the Ministries of Education, boards of excellence, demands from principals and parents. They also have a certain path of professional development.²¹ All these elements may provide some guidance as to what is expected.²² However such a guidance is of little use when there is no time for internalizing its rules which is necessary to inform the deliberate practice. Without understanding many teachers follow the procedures mindlessly, seeing no relation between them and their professionalism.

The changes in demands, the diversity of teaching roles and the lack of understanding of what teaching really is seem to have complicated the understanding of what it means to be a good teacher, not to mention an excellent one.²³ “Great teaching” is a popular subject and many people feel entitled to form normative demands towards the profession. Very often, especially in the market-driven economy, effectiveness²⁴ becomes the equivalent of a great teaching. However, such effectiveness is often associated with different outcomes depending on the didactic paradigms.

18 Also socially selected, historically situated and personally constructed (Ford, Hayes, & Agnew, 1997).

19 “Research on teacher expertise is concerned with the knowledge and skills that characterize the successful teacher” (Bromme, 2001, p. 15459).

20 So it is very difficult for them to obtain feedback. However, it does not mean that they cannot look for feedback from their students.

21 In Poland there are four stages of that development: trainee, contracted, nominated, and certified teacher. The procedure is quite bureaucratic and requires detailed descriptions of all activities which has little to do with the actual practice and usually drains teachers from all energy.

22 Expertise can also be verified by other experts, by members of the community, through awards and of course through the results of their professional practice.

23 A mother of a *gifted* child may find peer learning implemented by a teacher in a project as a waste of her child's time, while it may be awarded by the principal as an innovative approach.

24 Which is also burdened with huge responsibilities.

DIDACTIC PARADIGMS AND THE EFFECTIVENESS (EXPERTISE) OF TEACHERS

“The introduction of the paradigm category into pedagogy still raises many controversies and leads to fundamental disputes” (Sajdak-Burska, 2018) as there are multiple coexisting paradigms. However, as Klus-Stańska (2009) pointed out, the specificity and strength of the humanities and social sciences lies in their multi-paradigmatic character. A comprehensive understanding of the implications resulting from each of the different paradigms becomes crucial. The concept of a paradigm was created by Thomas Kuhn²⁵ and since then many publications have dealt with the issue. For the purposes of this article I chose the most recent monography on the paradigms of didactic written by Klus-Stańska (2018). This publication makes the concept of paradigmatic differences in education understandable and clear.²⁶ It is easy to follow, very comprehensive and though it varies from the mapping approach taken by Sajdak-Burska (2018), I found it well-suited for the purposes of this article.²⁷ What was of considerable value to me was the attention that Klus-Stańska (2018) drew towards a very important aspect of paradigms’ divergence: the language of rhetoric and understanding of certain definitions and concepts used in different paradigms that might be very misleading if not paid attention to.

The typology of paradigms applied in the above mentioned publication differentiated the following didactic paradigms:

- within the objectivistic approach: normative, instructional and neurodidactic,
- within the interpretative-constructivist approach: humanistic, constructivist and connectivistic,
- within the transformative approach: critical and libertarian.

The co-existence of multiple paradigms in the social sciences does not mean that they may be applied simultaneously. Since each paradigm defines its concepts in its own way, the disparities between them are insurmountable (Klus-Stańska, 2018, p. 39). The paradigms are in fact incommensurable which means that a teacher

²⁵ The lack of a precise paradigm definition is also attributed to him, since he created more than 20 definitions of a paradigm.

²⁶ Such a simplicity is especially valuable in a time when teachers search for their identity.

²⁷ A kind of first step on the way to understanding what different paradigms mean. I also took into account the fact that this monography is written with the teachers in mind and this article is mostly about them and their problems.

cannot choose to follow the rules guiding certain practice under two different paradigms. In this light, combining a project requiring students' activity with the specific, detailed outcomes that must emerge from that project is not only doomed to fail but is scientifically incorrect.

Under the above-mentioned paradigms, teachers will be considered effective,²⁸ excellent or expert in different situations, bearing different outcomes. Considering the diversity of teaching roles and the ambiguity of what it means to teach, the possibilities might be endless. To provide just a sample of what I mean, I thought of some criteria of effectiveness which I combined with specific teacher's roles under specific paradigms.

Within the objectivistic approach:

- A teacher in the role of a traditional manager transmitting established knowledge and directing students' thinking, could be considered the more effective the more active they would be, the more curriculum they completed in a given timeframe, the more documents they filled out and the better order and discipline they managed to keep. Under the instructional paradigm the effectiveness could lie in excellent exam results.

Within the interpretative-constructivist approach:

- A teacher in the role of an organizer of the learning environment, could be considered the more effective the better they would be able to prepare appropriately designed examples that would trigger a cognitive conflict in their students, developing learning skills, eliciting questions, cognitive curiosity and increasing internal motivation.

Within the transformative approach:

- A teacher in the role of a transformative intellectual, could be considered the more effective the better they prevented social segregation and violence, changing or freeing pupils' of habitual thinking, emancipating them. Under the libertarian didactics the judgment of effectiveness does not seem to be appropriate at all but for the sake of the argument I could imagine that a teacher in a role of a companion, available to the student, could be considered more

²⁸ A very comprehensive analysis on what effective teaching may be is available in the report *Effective Teaching* (2014) published by Education Development Trust with the cooperation of Department of Education at Oxford University, the Centre for Equity in Education at the University of Manchester, the University of Glasgow, the University of Nottingham and the Hong Kong Institute of Education. Available at <https://www.educationdevelopmenttrust.com>.

effective when developing personal responsibility, willingness to learn and spontaneity of their students.²⁹

The differences are immense and may be very confusing for the teachers. Many of them think that there is no time for innovations or introduction of any changes in their didactic approach (a bit like cutting trees with a dull axe due to the lack of time for sharpening it). Kawecki (2003) noticed that the teacher waited on average 0.8 seconds for an answer from a student and tried to convince his readers that it was possible to wait 3 seconds without any negative consequences. When a teacher is used to a certain discourse and has been acting under time pressure fighting for all the wrong results then it is going to be very difficult to change their habits and scripts however inappropriate or unsuitable under a different paradigm. The absence of changes and reflection may result in frustration, lack of results or feeling of fulfilment. Żłobicki emphasizes that the way in which “teachers perceive themselves and their students, what their beliefs are about the correctness of the learning and teaching processes, significantly affects the final results of the school’s work” (Żłobicki, 2002, pp. 16–17). It is therefore important to make the rules for effectiveness and excellence clear to allow for deliberate improvement.

CONCLUSIONS – WAYS OF ACHIEVING EXPERTISE DESPITE OF THE MULTIPLICITY OF TEACHER ROLES

Many publications provide specific qualities that constitute an expert teacher. Researchers may provide lists of prototypical features of an expert teacher, stages of development and the rules for practice.³⁰ Still, being an expert teacher is not a category that could be taken for granted. As Bromme pointed out, “less than one-half of the respondents in a survey of teacher-training students considered the expert concept to be appropriate for their future profession” (Bromme, 2001, p. 15460).

The aspects necessary to achieve expertise mentioned in this article show how important it is to understand the basic concepts and the meaning of what it is that the teacher is trying to achieve through their performance. Without that knowledge and understanding, the teacher will not be able to work deliberately on

29 And their willingness to be with that teacher, I suppose.

30 E.g., Bromme (2001), Tsui (2003), Berliner (2004), Feldon (2007), Stobart (2014), Gobet (2016).

their development, will not be able to benefit from an over-study, will not be able to rely on their routines and – most importantly – will not understand³¹ what the excellence would consist of.

As Wolff, Jarodzka, & Boshuizen wrote: “teachers must first notice and recognize events before they can render them meaningful. The events a teacher notices, as well as the meaning attributed to them, is determined by their perception of classroom information (the people, objects, interactions, and spatial dimensions of the classroom itself) and the way these merge with ongoing knowledge-based processing, which transforms this information into an interpretation”³² (Wolff et al., 2017, p. 296). Different paradigms will determine much of the teacher’s perception of the particular events or situations.³³ Managing a classroom or keeping discipline, for example, may generally be beneficial to the learning process but the actual judgment can only be made once we can see the reasons behind a certain intervention. A constructivist teacher will perceive different behaviour as disruptive or misbehaving than a normative one, which will result in their different approach in a seemingly identical situation. Understanding paradigms seems to be the first step in understanding what it means to teach and to excel in teaching. As Sajdak-Burska (2018) pointed out, first, one must learn to work under paradigms so that you can exceed them. Skipping them at the very beginning of the scientific path may cause chaos and difficulty in defending the interpretations made.

The expertise of coaches and trainers in the fields of sport or music lies mostly in a high level of self-awareness and reflection, and the ability to effectively observe themselves and others. Donald Schön (1983) urges the practitioners to move past technicalities and repetitive strategies and try to reflect while acting (*reflection-in-action*), which requires artistry, idiosyncrasy and also noticing the uniqueness of their students.³⁴ However such a reflection is difficult when one does not know their role. Łukasik (2015) drew attention to some research projects conducted in Poland showing that many teachers stay in their imposed roles, performing their duties almost automatically, without questioning or reflecting on them,

31 And therefore neither will they recognize such excellence even when achieved.

32 Interpretation refers to a teachers’ ability to make sense and derive meaning from the classroom events and interactions they perceive. Interpreting classroom situation draws upon prior knowledge of classroom events, awareness of current events arising in the classroom, and an integrated fusion between what one knows about classrooms and what one is perceptually aware of in real-time (after Carter & Doyle, 1987). Cf. Wolff, Jarodzka, & Boshuizen (2017) .

33 And the development of acute perceptual capacities is a primary characteristic of expert teachers as pointed out by Berliner (1994).

34 Schön talks mostly about the clients of the practitioner but I think it can be adapted accordingly.

often frustrated, yet still not initiating any behaviours that could bring upon some change. The research also showed a group of teachers who function in a professional role in an autonomous way, with internal control, being reflective, treating professional experience as a source and opportunity for development and change, as well as making changes with a sense of responsibility (Łukasik, 2015). Those would be the reflective practitioners, embracing uncertainty instead of treating it as a threat.

Other research on teachers' attitudes and the quality of their instruction pointed towards self-efficacy. Reports of self-efficacy have been shown to be linked to productivity as they influence people's actions in the workplace. Holzberger, Philipp, & Kunter (2013) researched the influence of self-efficacy on the quality of instruction. Self-efficacy is not only believed to be a key motivational construct³⁵ in the research on teaching, allowing teachers to deal with more complex tasks, but is also assumed to influence their instructional behaviour and many other related outcomes,³⁶ affecting their level of performance,³⁷ their well-being and feeling of burnout.³⁸

Self-efficacy, self-awareness and reflection all seem to be connected with the development of professional effectiveness allowing for deliberate practice and conscious performance.³⁹ All these attitudes however require understanding the context of their working environment, which means understanding the didactic paradigms:⁴⁰ in the country, the local environment, the school, the classroom. This may be the foundation enabling a conscious approach and choice of actions.⁴¹ It is essential for teachers to reflect upon their own practice, to research it, to analyse

35 Bandura (1997), after Holzberger, Philipp, & Kunter (2013).

36 Tschannen-Moran, Woolfolk Hoy, & Hoy (1998), after Holzberger, Philipp, & Kunter (2013).

37 Ross (1998), after Holzberger, Philipp, & Kunter (2013).

38 Brouwers & Tomic (2000); Schwerdtfeger et al. (2008), after Holzberger, Philipp, & Kunter (2013).

39 *Self-reflection* [in Polish: *autorefleksja*] and *self-development* [in Polish: *samorozwój*] were also added to the project of the national standards for teachers.

40 From a teacher (pedagogue) as a practitioner and as a subject of social discourse on education one can expect – as part of their professional roles – that they will be able to verbalize theories and values accepted by them as the premises for constructing a program of educational practice and would like to take responsibility for the taken (or abandoned) actions (Hejnicka-Bezwińska, 2008, p. 174).

41 Czerepaniak-Walczak (2014) argues “for the usefulness of action research as a research paradigm in the development and updating of teachers' professionalism”, encouraging teachers to reflect upon their everyday practice.

and to evaluate it.⁴² It also seems crucial to determine or define one's own position as a teacher in relation to other participants of the education process. It is not possible to please everybody and it is not realistic to think one is capable of doing so. Such expectations elicit frustration and disappointment, and are the reason behind experiencing burnout (Szempruch, 2016).

Self-reflection and self-awareness may also help teachers move beyond thoughtless habits and routines that – especially in Poland – may belong to a different paradigm, clouding the meaning of basic concepts.⁴³ It is not going to be an easy task especially now, when the teachers in Poland are focused on fighting for survival, not for excellence.⁴⁴ But it is a worthy fight as John Hattie once wrote: “Teachers Make a Difference”.

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42 Such an evaluation will determine, for example, whether the teacher can be satisfied with students' progress based on the tests results. In other words, the teacher needs to determine which way will satisfy them in diagnosing their students' development: whether it will be based on a discussion with students, on internal tests, standardized tests, projects, competitions or maybe a combination of the above. Without such a realization the teacher may never feel satisfied with the progress of their students which in fact may result in dissatisfaction with their own work.

43 “Changing the way of thinking about education entails the evolution of pedagogical theory, resulting in shifts in the meanings existing in its area. The basic meanings are redefined [...]” (Męczkowska, 2002).

44 As a result they employ strategies focused on keeping classroom discipline, for example. The complexity of the strategy results from the complexity of the goals of education and teaching, which is why “strategies leading to short-term goals may interfere with strategies leading to long-term goals” (Kwiecińska & Stępień, 2015).

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