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DOCTORAL SCHOOL OF EDUCATIONAL SCIENCE

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The patterns of the instructors' adaptability in Higher Education
– Inquiry in a Hungarian HEI –

Thesis booklet

Budapest, 2024

Introduction

Based on two decades of experience in secondary and higher education, my mission is to represent that learning is an adventure and a value that can make human life happier, both in its process and outcome. Traditional forms of education based on knowledge transfer are no longer satisfy students' needs (Csehné Papp & Varga, 2018). To involve students and awaken their enthusiasm for the profession and learning, it is essential to renew by understanding and considering changing needs, where innovative thinking is indispensable (Ramsey & Khan, 2021). The massification of higher education (Meyer & Schofer, 2006) and the increasing diversity of students (age, nationality, learning objectives, prior knowledge, employment, training form preferences) (Csehné Papp et al., 2017; Csehné Papp et al., 2023; Hrubos & Horváth, 2012), as well as the COVID-19 pandemic, have severely tested but also stimulated university teachers' adaptability (Neuwirth et al., 2021). However, the question arises: why not all instructors have achieved the same success with the new methods introduced? What helped or limited them in making changes?

The starting point for continuous renewal is the adaptive orientation (Hatano & Inagaki, 1986). In this dissertation, adaptability is interpreted as follows: a striving to improve the quality of learning and teaching, focusing on changes, especially students' needs, and aiming for reflection and innovation in the planning, implementation, and any related process of education (Bransford et al., 2005; Corno, 2008; Frányó, 2022; Hardy & others, 2019; Hatano & Inagaki, 1986; Parsons et al., 2018).

Despite the significance of the topic, regarding adaptability a very few research has been conducted in the context of higher education. Therefore, the primary goal of this exploratory and interpretive research was

- to reveal the patterns of university teachers' adaptive orientations at the Budapest Business University,
- to support university teachers' personal realisations about their own adaptability, and
- to explore the possible causes and internal connections of these patterns.

Theoretical Foundations

Since teachers are keys to the effective implementation of the curriculum, the OECD emphasizes their prominent role in representing stated and hidden values. In his study summarizing the results of Visible Learning in higher education, Hattie (2015) states that the most important task of a teacher is to know their own impact and be aware that they are the

"agent of change" (Hattie, 2015). Academics' experiences, believes, views, understanding, and concepts of teaching determine their approach to teaching (TaT), which is closely related to their students' approach to learning, hence learning outcomes (Trigwell & Prosser, 2020). Teachers' thinking, views, attitudes, and their relationship to students' thinking and views fundamentally affect the entire learning process (Hativa, 2000).

The international literature on effective higher education for learning is abundant, many thematic journals and books focusing on this question are available (Ambrose, 2010; Biggs & Tang, 2007; J. D. Bransford et al., 2000; Davis, 1993; Fink, 2013; Hativa, 2000; Nilson, 2010; Svinicki et al., 2011). According to the literature, effective learning in higher education involves deep, understanding-based learning in an environment which is suitable to debate and critical thinking, developing metacognitive skills, and self-directed learning. As a background to this research, broadly interpreted constructivism stands out, as it fits adult learning and higher education pedagogy in several aspects: it assumes independent knowledge construction based on prior knowledge, which is influenced by the social environment and fits into our modern era's connectivist, hybrid expansionist, and comprehensive learning models (Dochy et al., 2022). When examining the wide-ranging literature on constructivism, the main criteria were the higher education context and the exploration of specifically critical literature, as the arguments and cautions raised in connection with the constructivist approach together make the model reasonably adaptable to specific higher education contexts.

The purpose of teaching is to enable learning for students (Ramsden, 2003). We can talk about truly student-focused teaching if the instructor considers it as their task to create the framework of learning (the learning environment), to enable their students to actively construct their knowledge based on deep understanding, that is, the learning process, which includes formative assessment as an integral part (Frey et al., 2006). However, since the goal in higher education is to build and extend specific expertise on the basis of a broad base of fundamental knowledge, even in student-focused approach it is essential to focus on professional content and the instructor's role in directing the learning process (Van Bergen & Parsell, 2019). Teaching should not be viewed merely as a collection of methods and techniques, but rather as an activity where the academics select, organize, and transform their field of knowledge in a way that enables students' engagement and they deep understanding. (Hativa, 2000). University teachers must have a deep knowledge of their subject area and they have to know how to impart it, their knowledge should be a "special amalgam of content and pedagogy" (Shulman, 1987, p. 8). Shulman (1986) categorically distinguishes different forms of teacher knowledge: subject matter knowledge (content knowledge), pedagogical content knowledge (PCK), and curriculum

knowledge, which are together enable quality teaching, making possible to set well-defined specific goals and organize pedagogical processes aligned with them (Shulman, 1986).

In the Hungarian context, student-focused teaching is a new topic (Káplár-Kodácsy & Dorner, 2022) and although there have been useful results in higher education methodology research at the national level for years (Bencsik, 2013), their implementation into practice is challenging. Small, local changes are taking place, but academic knowledge transfer is still mostly theoretical knowledge-transfer within the framework of frontal lectures (Keczer 2015). The majority of academics' methodological perspectives do not really extend to tasks aimed at competence development, formative and diagnostic evaluation supplementing summative evaluation, and upbringing (Jármai et al., 2019). For a change in methodological culture openness, interest, and an innovative attitude are necessary at both the teachers' individual and institutional levels.

Academic development (faculty development) is a practical science topic (Roxå & Mårtensson, 2009). The broad goal of academic development is to create conditions that support teaching and learning (Leibowitz, 2014, p. 3). The specific feature of professional development in higher education is that the academics' status is interpreted together with several inseparable roles (Geertsema, 2021), and these roles and their changes are affected by subject, scientific field, and organizational level community processes. The essence of academic development is the expansion of subject knowledge with pedagogical content knowledge (PCK) (Geertsema, 2021), more narrowly, the development of teaching with the goal of consequently improving the quality of student learning (Barrow & Grant, 2012). However, the long-term goal is the formation of an organization dealing with teaching and learning (Bolander Laksov, 2008), that is, the strategic approach of academic development, which brings about cultural changes (Geertsema, 2021). Thus, although professional development can be narrowly interpreted as relating to the teacher's role (professional development), in a broader sense, it affects all roles associated with academic status (academic development, faculty development) and its complex environment inseparable from social effects (Roxå & Mårtensson, 2009, cited by Dorner & Belic, 2021) (Geertsema, 2021).

A higher level of thinking about teaching is the Scholarship of Teaching and Learning (SoTL), which should be considered a possible strategy for academic development (Geertsema, 2016). Emphasizing the value of teaching requires elevating it to community property, the key elements of which are communication, the creation of a shareable and discussable product/artifact (publication), and expert review (Shulman, 1993). There are three steps leading to this scholarship: it starts with the intention of individual development, turns into a dialogue

with colleagues knowledgeable in the field, and then matures into science (research and publication) (Weston & McAlpine, 2001). The four dimensions of SoTL are awareness (pedagogical content knowledge (PCK)), focused reflection, communication (knowledge sharing), and student-centeredness (Trigwell et al., 2000, p. 163). It is possible to move on each of the four scales individually, but they are typically interconnected, and those teachers who are positioned at the highest level on every scale are considered as a committed person to the Scholarship of Teaching and Learning (SoTL).

One of the main driving forces of academic development is the adaptive orientation. The adaptive expertise, approached independently of the field, was first examined by Japanese scholars Hatano and Inagaki (1986). Their goal was to understand cognitive development and the formation of expertise, relying on Piaget's (1950) ideas they think that solving a new problem with prior knowledge results in the expansion of knowledge, the integration of new knowledge, and the basic internal motivation of humans is the need for understanding, thus procedural knowledge can become conceptual knowledge (Hatano & Inagaki, 1986). If the expert is not satisfied with just increasing the efficiency of their procedural knowledge but also aims to understand the nature of their abilities, we speak of adaptive expertise. This expertise comprises cognitive, motivational, and personality-dependent elements, requiring conceptual understanding. Adaptive practice is characterized by knowledge construction, knowledge creation (Crawford et al., 2005), and the flexibility of adaptive expertise, which allows the expert to recognize when usual rules and principles do not work (Crawford et al., 2005), and to respond in a way that, although may reduce the efficiency of their competencies in the short term, achieves their flexibility in the long term (Bransford et al., 2005).

Adaptive expertise can naturally be interpreted in the context of higher education teaching expertise, where innovation, the intention, and ability to innovate are essential (Ramsey & Khan, 2021). Based on the literature review in this dissertation adaptability is defined as a striving to improve the quality of learning and teaching, focusing on changes, especially student needs, and aiming for reflection and innovation in the planning, implementation, and any related process of education (Bransford et al., 2005; Corno, 2008; Frányó, 2022; Hardy et al., 2019; Hatano & Inagaki, 1986; Parsons et al., 2018). The pursuit of improving the quality of learning and teaching includes the need for academic development as well (Leibowitz, 2014), both individually and collectively.

The literature concludes that neither adaptability nor effectiveness are personal traits, but orientations and directions that may or may not appear in a given situation. Adaptive teaching (similarly to constructivist learning) is not a rigidly defined path to follow, but rather

a focus and reflection based on university teachers' openness and conscious development, which can relate to students' needs, instructors' own actions, and the broader environment beyond the classroom. By implementing this, they offer much more than the transfer of their disciplinary knowledge and have a deeper impact on their students, thus continuously expanding the boundaries of knowledge creation.

In the Hungarian literature on higher education, the professional development of university teachers is a relatively recent topic (Káplár-Kodácsy & Dorner, 2022), and although the quantitative aspects (e.g., the number of hours) are primarily associated with academics' teaching activities, for the sake of retention of students and increasing the effectiveness of training quality aspects of teaching have also emerged (Halász, 2010). In light of this, one starting point for fundamental research targeting academic profession and professional development in our country could be individual university teachers' views and actions, as well as their professional development paths. It is important to examine whether the aspects of learning or teaching dominate teachers' thinking, to have the entire process of teaching and learning as the subject of research, and to consider the role of communities in academic development. Knowledge of the local (national, disciplinary, and institutional) context is essential, regarding the primary function of a higher education institution is learning and teaching its genuine improvement can only occur adaptively, taking into account the specific needs arising in the local context.

The directly involved literary elements in the research are as follows:
- The topic of teachers' approach to teaching (TaT) (Trigwell & Prosser, 2020),
- Elements and stages of Scholarship of Teaching and Learning (SoTL) (Kreber, 2002; Trigwell et al., 2000), and
- Manifestations of adaptive expertise.

However, as adaptive expertise and adaptive orientation among academics in higher education in Hungary have not been previously examined, in addition to the elements found in the literature, the research has a strongly exploratory design.

The Research Questions and Methodology

The aim of the research was to examine the patterns of university teachers' adaptive expertise in Hungarian higher education, specifically at Budapest Business University.

The main questions were as follows:

I.   How do academics think about learning and teaching? What are their views related to adaptive teaching?

II.   How does adaptive orientation manifest in teaching activities and competencies?

III.   What factors influence the forms and patterns of adaptive expertise? How does adaptability appear in the teaching of different professional subjects? How are the forms of adaptive orientation related to background variables and choices in professional development paths?

IV.   What specific adaptive teaching practices emerge in the work of instructors?

The research had a constructivist, exploratory, interpretive design (Creswell & Creswell, 2018), aimed at discovering the world through the examination of complex everyday events, starting from the assumption that reality is subjective, constructed, and interpreted in the human mind, and there are no context-independent truths, but hidden meanings can be revealed through the relationships of experiences and their forms of expression (Cohen et al., 2007). The most comprehensive exploration of the phenomenon and the reduction of researcher subjectivity were served by a methodological pluralism based on pragmatism (Creswell & Creswell, 2018). The research examined the phenomenon with three methods to achieve triangulation: in the first stage a qualitative data collection and text analysis using phenomenographic analysis and thematic, framework analysis were taking place. Methodological samples were provided by the works of Åkerlind (2012), Dorner (2018), Kinchin et al. (2018), Marton and Booth (1997), and Ritchie and Spencer (1994). The second stage involved quantitative research, questionnaire, and statistical data analysis, and in the third stage, case studies were prepared using qualitative methodology again, based on the research of Lewis et al. (2006), Ollin (2009), Suplicz (2011), and Ritchie and Spencer (1994). The tools ensuring the perspective of the academics were interviews, questionnaires, and documents (lesson plans), while classroom visits used as a tool for the external observation. The theoretical exploration, interviews recording and analysis, followed by questionnaire survey and analysis were sequential methods, implemented with an exploratory, successive methodology (Creswell & Creswell, 2018). The purpose of this sequence was to examine the concepts related to adaptability found in the literature first in the university teachers' own conceptualization, in light of their thinking about teaching, using their specific language characteristic of their educational context, and then, using the categories developed from the text analysis, to conduct a broader questionnaire survey to examine the internal and external interconnections of the emerging educational factors. The preparation of

case studies also sequentially followed the interview phase, closely building on it, with further document analysis (lesson plans), classroom observation, and concluding interview (class discussion). The purpose of compiling the case studies was to coherently depict the thinking and practice of instructors, to present individual teaching styles, and to explore the interconnections, main dimensions, essential elements, and possible polarities of excellent practices. Accordingly, the questionnaire and case study research phases are overlapped in time but were not built on each other, and conducted with parallel methodology (Creswell & Creswell, 2018). The interconnections of the research phases are illustrated in Figure 1.

Exploratory, interpretive research (Mixed methods design)

0. phase: Theory background ⟶ 1. phase: Interviews

Elements and categories of adaptability ⟶ 2. phase: Questionnaire ⟶ *Patterns of adaptability*

Exploratory sequential mixed methods design

Convergent parallel mixed methods design

⟶ 3. phase: Case studies
- lesson plans
- classroom observations
- class discussion

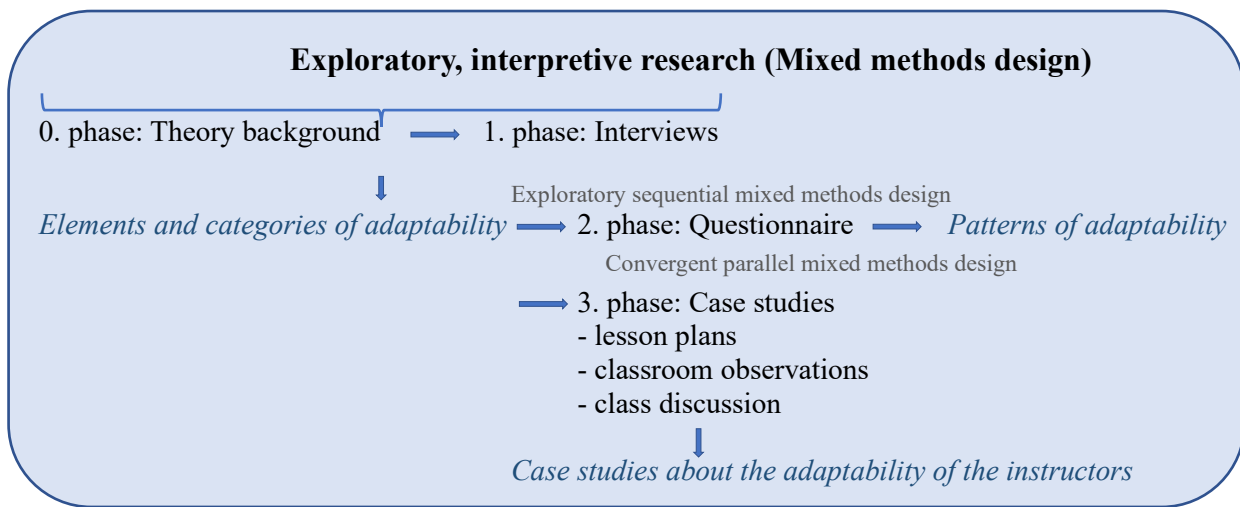*Case studies about the adaptability of the instructors*

Figure 1: Structure of the research (Own editing)

The research was conducted within the institutional framework of one university, Budapest Business University (BBU), with academics teaching economic subjects at its three faculties, targeting a faculty of 457 persons. In the interview phase, 33 people participated, 49 filled out the questionnaire, classroom observations occurred with 12 teachers, and case studies were made of 4 of them. All three phases of the research were approved by Dr. András Jancsik, Vice-Rector for Education from BBU, and by the Research Ethics Committee of the Faculty of Education and Psychology at ELTE.

Results
I. Instructors' Views - New and Novel Results
How do instructors think about the learning-teaching process? - Novel Result
To answer this question, we sought to map the teachers' objectives and teaching approaches (TaT). In terms of objectives a system inductively built from the interview texts, with

interconnected main elements. These are student success, student knowledge (logical thinking, economic perspective, understanding knowledge and solid foundations, system perception), as well as enthusiasm and relationship building, and the development of soft skills loosely related to the subject. In the questionnaire phase we examined the priorities. The most important goals became the understanding acquisition of knowledge and the solid foundations. A significant deviation from this result appears in relation of age/teaching experience and taught subject group: young instructors teaching for a few years, and instructors teaching accounting and analysis subjects found that the most important goal is the awakening of enthusiasm, while older, longest-serving instructors and those who are teaching economics and finance subjects preferred the economic perspective and voted for the development of soft skills useful in other areas. (There is a correlation between age and teaching experience, but not between age/teaching experience and taught subject group in the sample.) The results of the case studies resonate with the priorities according to the questionnaire, the participants' objectives is clearly, along with understanding knowledge and solid foundations, the transfering of the system, , using the path of awakening enthusiasm.

Teachers' approach to teaching (TaT) was examined and the two-pole (teacher- and content-focused/student- and learning-focused) model is proved to be insufficient because the issue of student-centeredness is not clearly definable based on interviews, questionnaires, documents and classroom visits, or more precisely, a very few participants can be declared as a representative for a purely student-focused approach to teaching. A more frequent approach was the student/teacher interaction, which was the most clearly identifiable and often occurring result in both the first and third research phases.

The last examined area of thinking about teaching was the spontaneity/planning theme, which, based on the questionnaire results, was not interpreted as two poles of one dimension, but as coexisting, complementary separate dimensions, and this is how it appears in practice. According to classroom observations, planning refers to the instructors' consciousness and maximum controlled teaching activity, while their spontaneity unfolds not in the course of the lesson and methodological solutions, but in time management, as well as in interactions and relationship building.

How do participants interpret adaptability? – New Result

The research aimed to understand the concepts of adaptability formed by the participating academics and how they perceive their adaptive orientations. Interpretations and manifestations have been organized into a hierarchical system within three qualitatively different aspects:

Openness, Abilities, and Actions, i.e., attention and reactions to students, themselves, and colleagues. The emerging system is not intended to typify the personal character of the instructors, but rather to explore situation and context-dependent orientations. Although the hierarchy suggests the possibility of development or identifies obstructive, solvable factors, however any level of any aspect can be an entry point on the path towards deepening adaptive orientation, the steps of the hierarchy do not represent 'better' examples, but content expansion compared to the previous level. Good examples, based on case studies, represent different adaptive paths and are strongly dependent on personality and previous experiences. The approaches to adaptive orientation are illustrated in Figure 2.
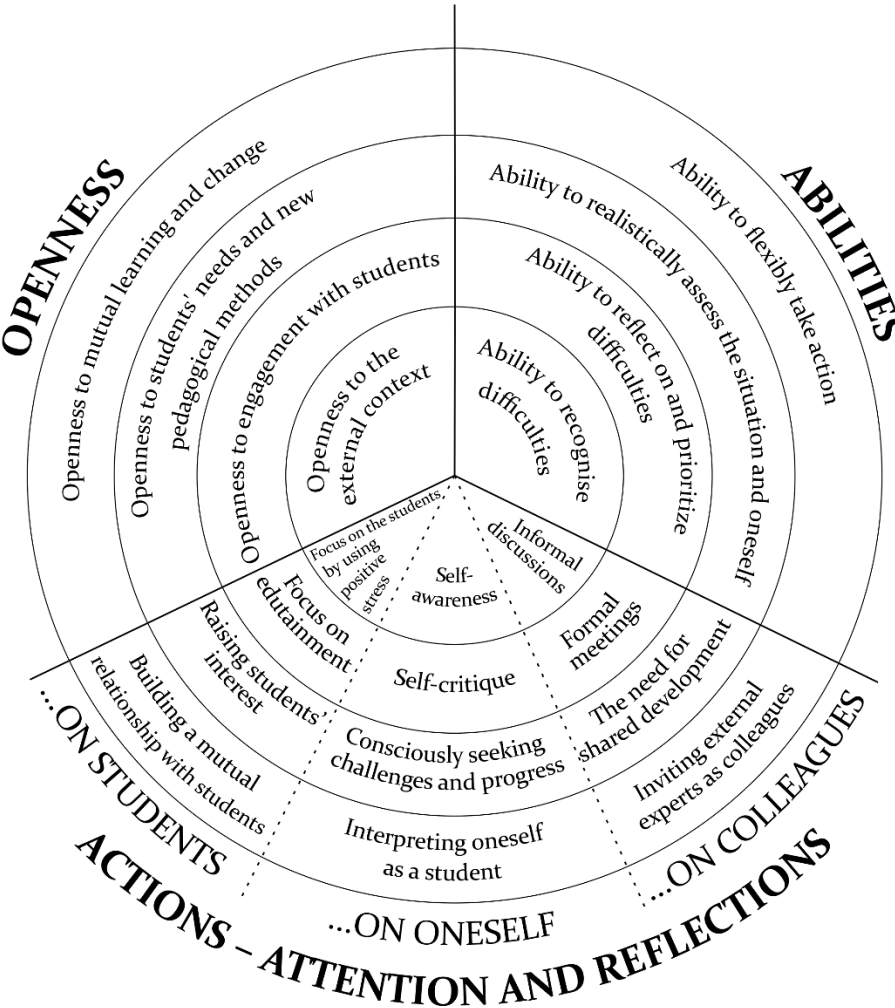
Figure 2: Approaches to Adaptive Orientation (Own Editing)

How do participants interpret professional development? – Novel Result

Based on interviews, there are significant differences among participants in their assessment and chosen modes of professional development. Many focus only on professional development

in their taught scientific field, others think about pedagogical professional development but mostly experience it as a spontaneous change, while a third of them consciously develop their pedagogical skills. According to the responses, the tools for conscious pedagogical professional development are: informal dialogue, formal collaborations, internal and external materials and trainings, of which a third of the interviewees make use of organized forms. In contrast, the questionnaire responses suggest that participants find both pedagogical and economic professional development equally important, although when examining a narrowed sample (excluding those teaching language and skill development subjects), the emphasis shifts towards economic professional development. An exception to this are the themes of the regular thinking about education development and the local dialogue, based on which the work and thinking of those, who are teaching strictly economic subjects, are largely comprised of educational activities.

What is the instructors' interpretation of their teaching role and mission? – Novel Result
Along with objectives the interview and questionnaire also addressed the teaching mission, creed, and how participants interpret the essence of their teaching work. The responses remained related to the objectives but mostly pointed to affective areas, which were categorized into four main groups. These are student success, representation of the value of work and development, creating interaction, and establishing enthusiasm and love for the profession, with the latter being the most characteristic. The questionnaire responses fit into the broader and the four-element system as well, with a greater emphasis on professional responsibility, emphasizing commitment and recognizing the utility of the subject for students and the importance of students' personal development. The case studies seemingly present four different missions, but on closer examination, differences lie only in the details of implementation. Every participant's mission revolves around motivation, awakening enthusiasm, and thereby laying the foundation for further learning.

II. Experiences in the Teaching Practices of Participants – Novel Results
What challenges do instructors face in their teaching practices? – Novel Result
Based on the results of all three phases of the research, the challenges can be divided into three areas: difficulties related to students, external conditions, and the personal dilemmas of university teachers. According to the interviews, the main challenges related to students are mixed prior knowledge, changed concepts of learning, lack of motivation and interest, and difficulty in maintaining attention. The solutions to these challenges are hindered by external

conditions such as large student numbers, rigidity of the curriculum and assessment system, and often classroom facilities as well. The personal dilemmas of university teachers relate to their role interpretation and workload in the world of digital and service-oriented education. Classroom observation and their discussions support these findings, and the results of the questionnaire research further tone the mixed prior knowledge theme with the problems of students' logical and critical thinking and understanding of broader contexts, as well as highlighting the changed concept of learning with difficulties arising from the lack of learning at home.

How do they handle teaching-related challenges? – Novel Result

The participants respond to emerging challenges with a diverse and conscious set of methodological solutions. The essence of their toolkit is a systemic approach, supporting student understanding, for which they use activation and motivation through relationship building and creating a good atmosphere, often supplemented with specific learning methodological help. The responses to the questionnaire specifically articulated the effort to shift from frontal work to learning- and student-focused solutions, and the majority of the responses targeted the attention to students and the flexible change, suggesting that the participants identify adaptive orientation as a solution and consider it as their task.

Regarding the solution paths, two themes came to the fore during the case studies: the mode of relationship building (humor and/or helpfulness) and the possibilities of the lesson rhythm (dynamic momentum or individual/group problem-solving). The insight into diversity leads to the conclusion that the development of good practice is likely possible for every instructor if they recognize the opportunities in the situation and their own personality.

III. Factors Influencing the Forms and Patterns of Adaptive Expertise – New Results

How does adaptability manifest in the teaching of different professional subjects? – New Result

Although the context of the research was clearly defined, according to the results of the interview research and case studies, it seems that within the field of economics there is no difference in the manifestation of adaptability for different professional subjects, as long as we strictly consider the adaptive orientation and separate it from the specific methodological implementation path. The latter is significantly influenced by the opportunities provided by the taught discipline, pedagogical features of the subject, and other aspects of the training (system, form, level, specialty, year, language of instruction, joint/own subject, lecture/practice, etc.)

According to the questionnaire results, however, one aspect of adaptability, namely the attention, and response to students, is related to the taught subject: the majority of instructors teaching economics and finance, as well as mathematics, informatics, and research methodology, strive for understanding the level and needs of students conscious learning by building support and mutual relationship, while the majority of instructors teaching management, marketing and communication, as well as accounting and analysis subjects, consider maintaining student attention as a key element (hence their earlier mentioned objective is to awaken enthusiasm).

How are the forms of adaptability related to background variables, instructors' believes, views, and choices in professional development paths? – New Result

When examining background variables, a significant correlation emerged between student assessment and istructors' self-evaluation about their own adaptability; student assessment seems to support the presence of adaptive orientation perceived by the instructor. Student assessment is presumably accurate in judging adaptive orientation, and good evaluation positively affects instructors' self-confidence, as they feel validated that they have successfully adapted to their students' real needs.

The teachers' approach to teaching (TaT) and adaptability are correlated according to the qualitative research: instructors with information transmission/teacher-focused approach to teaching do not pay much attention to students, while those who are striving for interaction excel in terms of attention to students. Based on their answers among the interviewees only few instructors were identified by us as student-focused, while many are proved to be outstanding in adaptivity (attention and reflections towards students), suggesting that despite the existing attitude, the majority have not yet undergone a paradigm shift from teaching- and teacher-focused teaching to learning- and student-focused approach. The key factor to this viewpoint shift (teacher-focused – student/teacher interaction) may be the willingness to build relationships and genuine attention, which supports the highlighted importance and necessity of adaptive orientation; moreover, for the second shift (student/teacher interaction – student-focused), instructors need support to deeply understand and comprehend the essence, goals, correlations, and methods of the new approach, as well as help in implementing these in the subject area context.

The correlation between the approach to teaching (TaT) and the teaching mission complements the above stated result with the observation that in the missions of the instructors the student success is being present regardless of the teaching approach, while work and

development only arise in approaches that are striving for students' acquiring of concepts. The willingness to build relationships arises in the student/teacher interaction approach, where the awakening of enthusiasm and love for the profession also becomes emphasized. Our case studies provide a complete, complex picture of these last two combinations.

Professional development among interview participants was generally interpreted primarily as subject area development, in many cases not mentioning pedagogical professional development at all. However, for those who did, adaptability and professional development were understood as mutually presupposing and consequential, as evidenced by some of the case studies as well. Examining the correlation between professional development and adaptability, it seems that most interviewees are more open and attentive to their students, themselves, and colleagues, and do not consciously seek possible forms of pedagogical development (although a third of the interviewees are exemplary in their professional development, learning from internal and external educational topic trainings). According to the correlations between professional development and approach to teaching (TaT), a quarter of the participants cluster in the intersection of those who are striving for interaction and participating in trainings as well, but the majority only reach informal dialogue in their pedagogical professional development, meaning their development is not really conscious.

Finally, we undertook a complex correlation study of the Scholarship of Teaching and Learning (SoTL) with two different methods. For this, we first compared the approach to teaching (TaT), the forms of professional development (knowledge of educational literature/educational science publication) and one aspect of adaptive orientation (attention and reactions towards students) with the two-dimensional representation of interview data, then with the theory representation of questionnaire responses. According to the results, 27% and 39% of the participants respectively were identified with Teaching Excellence, 33% and 16% with Teaching Expertise, and 3% and 4% with the Scholarship of Teaching and Learning. Since the two samples did not match, identical results were not expected. The two studies shows close results regarding the ratio of the approximately 40% of outliers and the 3-4% of front runners.

In the case studies, the correlations are less directly detectable, but upon delving into each participant's portrait, the factors form a coherent unit with each other.

IV. What specific adaptive teaching practices emerge in the work of instructors? – New Results

The examination of the interviews revealed a phenomenon that in the three-dimensional system of adaptive orientation there is not only a hierarchy within each aspect, but also there is a

connection between the levels: the degree of openness limits the level of abilities, and abilities, in turn, restrict the level of actions. In other words, until a sufficient level of openness is not achieved, abilities (even if they are latently present) are not utilized, and consequently, actions in the field of adaptive attention and reflections cannot be realized.

In the case studies, we outlined four specific adaptive paths. The most crucial starting point is that all four participants consider adaptive orientation as indispensable in their teaching work. They agree that for realizing adaptive orientation intention, will, effort, and significant time investment are necessary, along with partnering collaboration with other participants in the teaching/learning process, mutual helpfulness, where patience, encouragement, communication, and judgment can help the actors. In their view, some instructors are driven by curiosity and flexibility, others by insight and a sense of duty towards change and innovation, but adaptability and thus professional development are of paramount importance.

For the participants, the manifestation of adaptivity includes openness to connection, mutual feedback about students' understandings, and realistic situation- and self-assessment. All participants strive to recognize the level of perceptions and needs of their students, they provide conscious learning support, to which someone use lecturing skills, and someone the opportunity for mutual learning. Their attention to colleagues is characterized by informal and formal discussions and work is perceived as a common task. The only aspect of adaptive orientation in which the participants' approaches are significantly different for each other is the self-attention and reactions, but they are all characterized by awareness in this area as well.

Regarding challenges, they all mentioned generational differences, which for them manifest in the forms of changed concepts of learning and expectations, lack of motivation, and difficulty in maintaining attention. They all talked about mixed, often declining prior knowledge and also mentioned the rigidity and questionability of the curriculum, the incompatibility of student numbers and classroom facilities with student-focused teaching, and the dilemmas of teaching role interpretation in the digital age and service-oriented education.

In terms of methodological solutions they all consider vitally important to support deep understanding, for which they provide learning methodological help to students in addition to the professional content, wanting to provide solid foundations for their students to build on in the future. They find it essential to awaken enthusiasm for their difficult subjects, and to stimulate students' motivation. For this purpose, they strive for partnership, direct communication, and enjoyable teaching. None of them conduct exclusively frontal work; their approach to teaching (TaT) is clearly interaction-focused aiming the deep understanding. Their clearly articulated mission perfectly corresponds to this, since in spite of focusing on different

details and using different concrete tools, they are all revolving around the themes of encouragement, making learning enjoyable, and students' commitment.

The academics' awareness is indicated by the fact that the data from interviews, lesson plan analysis, and classroom observation perfectly coincide, i.e., the results of external observation fully support the instructors' views on their work and themselves. They conduct their consciously and realistically planned lessons with maximum control and flexibility.

Examining the differences in implementation based on classroom observations two aspects came into focus. One is the mode of relationship building, where two approaches emerged: directness achieved explicitly with humor, entertainment, or with helpfulness and attention, which are not mutually exclusive ways but highlights that a relaxed atmosphere is an essential factor and the relationship building is possible for every instructor, and can be implemented in a way that reflects their personality. The other topic is the rhythm of the lesson. Every participant uses the tool of captivating momentum, but during individual or group work the pace naturally slows down, and teachers use walking around and constant interaction to keep up the rhythm. The choice between the elements or the combination of the two elements to resolve the contradiction between activating and understanding-focused individual or group work and maintaining the pace again stems from the instructor's personality.

In the Scholarship of Teaching and Learning (SoTL) system (Kreber, 2002), all four participants possess Teaching Expertise. Their approach to teaching moves beyond teacher-centeredness, with a clear striving for interaction, heading towards student-centeredness. Their reflection is focused, they possess pedagogical knowledge of their subject, and are more or less committed to higher education pedagogy and subject pedagogy literature.

Using triangulated data source analysis in all cases we examined the various aspects of adaptive orientation, the approach to teaching (TaT), the specific teaching methodological solutions, and the deepening in the Scholarship of Teaching and Learning (SoTL). It can be stated for all of them that the high level of adaptive orientation, the teaching style striving for interaction and deep understanding, the conscious handling of higher education pedagogical challenges and solutions fitting their personality, and progress in the Scholarship of Teaching and Learning (SoTL) are interconnected, cooperative areas that elevate the academics' work to excellence and recognition by the wider community. However, the details of their excellence are not uniform at all, as each has a key element in their teaching practice that fits their personality, mission, and adaptive orientation, defining their teaching style and making it complete, coherent, and successfully functioning.

Conclusions, Emerging New Questions, and Implications for Education Developers

Since the research questions, especially those of III. and IV., are strongly determined by the Hungarian context, the results of the research are clearly applicable only to the participating teaching community. However, they can provide directional conclusions for the institution's professional community, for those involved in economic higher education, and for those working in Hungarian higher education. At the level of question formulation, the results can be utilized internationally and give rise to further research.

From all three phases of the research it can be concluded that the overwhelming majority of participating instructors have recognized the increasingly teacher related task of motivating students. Although their methods and approach to teaching (TaT) differ, most participants see interaction and partnership as the key elements to the situation.

According to the interview research and case studies, the degree of adaptive orientation of participants and their approach to teaching (TaT) are related. Although the participants' openness, abilities, and reflections on students, themselves, and colleagues are at a higher level than their approach to teaching (TaT), in which only a few achieve the student-centeredness approach to teaching (TaT) interpreted in the literature. However, they are conscious in their mission, with the overwhelming majority intending to awaken enthusiasm in students, make them love their subject and learning, thereby stimulating a demand for lifelong learning. The academics examined in the case studies are also conscious of their teaching methodological approaches applying the methods they deem effective in accordance with their personality, even implementing the same types of methods differently. Based on this, the research concludes that methodology can never be uniform; only flexible, personality-adjusted, and thoughtfully applied methods can make it effective, and its user a credible instructor.

Naturally, there are also difficulties in the practices of the participants. The main challenge is to balance the opportunities and enable trust-based rapport, through which students can connect to their teachers and their beloved subjects, see its usefulness, break through initial cognitive difficulties, feel successful, and find learning enjoyable. The basis of interaction is the adaptability of instructors: their openness, ability to innovate, as well as their attention and reactions to the surrounding students and colleagues, and themselves.

The main conclusion of the research is that academics' adaptive orientation is indispensable for quality teaching. The manifestation of adaptability is multifaceted; based on the research, it can be captured in three aspects (openness, abilities, actions), within which levels are arranged with expanding content. However, higher levels do not necessarily mean "better" solutions but rather come to life as good examples adapted to the instructor's personality

and the current context. Adaptive openness, the intention related to attention, reaction, and development, adequate time investment, and consciousness are factors that in addition to subject-specific, curricular, and pedagogical content knowledge enable self-awareness, learning from experiences, and explicit representation of values important to the instructor. The combination of all these forms is the key to the teachers' style which leads them to the specific teaching solutions.

Emerging Questions

During the summarization of the results and the drawing of conclusions, several questions emerged that are worthy of further research, continuing the exploratory and explanatory nature of the actual fundamental study with more practical-oriented investigations.

The first question that arise is *how to encourage and support instructors in the practical implementation of their intentions towards adaptive orientation, in more consciously handling their professional development paths in teaching, in the paradigm shift in teachers' approach to teaching (TaT) (recognizing the importance of relationship building and enthusiasm arousal, as well as a deep understanding and contextual implementation of student-centeredness), and thus in progressing in the Scholarship of Teaching/Learning.*

According to the research results maintaining attention, motivation and activation are essential parts of responding to challenges related to students. However, the question arises as to *what exactly determines the specific path of methodological solutions. Is the instructor's personality fundamentally decisive? With an appropriately adaptive orientation and the presence of Shulman's forms of knowledge, can every instructor find those solution forms with which they can be successful, based on a realistic knowledge of their personality? And if so, how can these factors be supported: adaptability alongside personality and the reflective understanding of suitable methodological solutions?*

According to the conclusions derived from the research results, there is no adaptive teaching in higher education isolated from the other participants in the process. Consequently, the question arises as to *what role different practice communities play in the adaptive orientation of academics, how the opportunities provided by communities can be utilized, and how leadership or faculty developers can support community dialogue so that it is truly motivating and voluntary, and thereby achieves its purpose.*

Suggestions for faculty and education developers (Office for Teaching and learning)

The results of the research primarily make possible the investigation of the emerged new questions for specifically academic and education development purposes, the development of opportunities, and the monitoring of the impacts of implemented developments.

At the university hosting the research (BBU), the Office for Teaching and learning actively contributes to the professional development of academics in higher education pedagogy. Based on the diversity of challenges raised in the interviews, my first suggestion is a comprehensive survey on what needs and requests arise among academics, what topics they feel the need for support in, as the research results suggest that the specific methodological solutions are less determining, rather the difficulties themselves are the focal points.

Since the system of adaptive orientation outlined in the research shows possible directions of development and highlights potential obstacles to progress, it could be effectively utilized. Understanding development more broadly than just expanding the teaching methodological toolkit, workshops or series of workshops could be organized using the specific results of the research, i.e., based on the hierarchical system of adaptive orientation, with discussions and collective thinking about each aspect, moderated by faculty colleagues who excel in that aspect.

In the broader interpretation of development, I find it worthwhile to use the system of the Scholarship of Teaching and Learning (SoTL) (Trigwell et al., 2000) to develop a complex system of higher education pedagogical development. As part of this, the paradigm shift in approach to teaching (TaT) could be supported in two steps based on the research results. The first step requires transforming the teacher-focused approach into student/teacher interaction approach, then clarifying the concept of student-centeredness, deeply understanding its elements, and adjusting it to the content-focused emphasis of higher education, supported by workshop opportunities where concrete solutions are also discussed with the concept details in mind.

Focused reflection is grounded in self-awareness and self-reflection, which can be significantly developed with structured support (Brookfield, 2017); events are also needed on this topic. For professional and higher education pedagogical development, it would be important to commit to professional literature and key educational models; therefore, I would consider it important to draw instructors' attention to some key elements of them. I would also see the organization of workshops where participants could receive help in searching for literature. It would be essential to support instructors' participation in higher education pedagogical conferences to familiarize themselves with the literature and current research.

Regarding the publication requirements in effect at the university since 2023, the support for university teachers' own research and publication activities in educational topics is necessary, because in addition to professional publications, it can stimulate more academical activities, since a significant part of the faculty primarily identifies with the teaching profession. Workshop series could be organized for the support of independent educational research and action research with the cooperation of Office for Teaching and learning and the Research Coordination Office, providing expert help for initiating or reviewing research.

In addition to the above, I consider it extremely important to better utilize the opportunities provided by formal and informal university networks. For the strengthening of communication between education developers and instructors, I see the possibility of involving department heads or their appointed department representatives in the educational development planning processes, as they clearly see what is needed. A working practice at BBU is the possibility of methodological support tailored to departments or subject groups, which could be expanded with dialogue, knowledge-sharing focused workshops. Based on the interviews and questionnaire completions, my conclusion is that academics like to talk and discuss their own concrete experiences and willingly accept good solutions from their respected colleagues in a peer-to-peer format. My suggestion is to invite well-known faculty colleagues to moderate discussions/workshops on specific topics.

My final thought on the theme of networking, knowledge sharing, and joint knowledge building is the support of research in higher education pedagogy. It would be extremely useful to have a system (e.g., on the university's internal network) where interested parties could register with their topic interests, methodological expertise, workflow preferences, etc., to find each other for future joint research projects.

Limitations of the Research and Further Suggestions for Future Studies

The limitations of the research are organized into three units. The first is the one-sidedness of the context: it was conducted with a limited number of participants teaching in the same scientific field, who presumably represent partly similar implicit and explicit values due to their community-embedded work. However, the research framework was adequate for the purpose of exploratory research, and its results only apply to the participating teaching community.

The second limitation is the partial failure of the second phase of the research. Since the questionnaire's questions were not always suitable for the purpose, and the number of completions remained much lower than expected, some of the expected conclusions could not be drawn from the questionnaire results. Consequently, the research results are underpinned

predominantly by qualitative methodological elements, and the triangulation of methodological elements and data sources served as a counterbalance. For further investigation, it is recommended to reconsider the questionnaire's question formulation (acknowledging the importance of the time factor) and to prefer open-ended questions.

The success of open-ended questions and interview and classroom observation methods coincide. Since academics were willing to undertake these, happily discussing and sharing their experiences with a helping intention and enthusiasm, it seems that the possible methods for further research on the topic primarily fit into the qualitative paradigm.

The third limitation is that the research was a cross-sectional fundamental research, with exploratory and interpretive purposes, it does not provide proven practical solutions or allow for longitudinal comparison and analysis of change.

All three limitations provide reason for further research considerations. The results only apply to the specific context and circle of participating instructors but offer a broad perspective as they proved not to be subject-specific, yet clearly relate to higher education. Further investigation could focus on the adaptability of instructors in other scientific fields.

The need to validate the model created also encourages further research, rethinking the methods for further research and testing the model in other scientific fields, including possible large-scale quantitative studies.

Besides adaptability issues, other elements of the research also raised forward-looking directions. During the examination of instructors' missions, besides cognitive elements, the strongly affective factors of the teaching profession came to the forefront. The examination of emotions related to teaching is a relatively elusive topic, with no research on it in Hungary yet, making the opportunity worth exploiting more extensively.

The significant openness to interviews, followed by a low questionnaire completion rate, raises the question of the involvability of instructors in research, their enthusiasm for it. It would be worth investigating the reasons for this, to confirm or refute the current assumption that verbal experience sharing, conversation, and voluntary collegial dialogue are the forms in which academics are willing to participate, find useful, and are willing to spend time on.

Related to the previous two points, it would certainly be worthwhile to continue research in the field of university teacher and student motivations, with qualitative exploration of the elements determining motivation in a local context, and it would be interesting to research the meeting/lack of teacher and student intentions and motivations.

Finally, an exciting future research direction would be to examine the role and potential exploitation of institutional formal and informal networks in academic development, which promises to be a large-scale, complex research.

The purpose of this research was to provide a starting point for further research at both national and international levels.

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