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MOTIVATION IN EDUCATION: CHALLENGES AND DIFFERENT PERSPECTIVES IN RESEARCH

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**MOTIVATION IN EDUCATION:
challenges and different perspectives
in research**

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2023.

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FOREWORD

The conceptual focus of this thematic collection of papers is motivation in education, defined most broadly. The complexity of this issue can be illustrated by three aspects. Certainly, the first aspect concerns the existence of a multitude of psychological theories contending to explain human motivation, including its manifestation in the context of education. The second aspect pertains to the very concept of education, which is not only ambiguous but has been extensively reexamined in pedagogical theories in recent years. The third aspect relates to the increasing shift away from the strict disciplinary approach to science. Interdisciplinary and multidisciplinary approaches to certain fields of research are ubiquitous in modern scientific literature.

All interested parties in the education system have voiced concerns about students' lack of motivation to continue their schooling after completing compulsory education and a decline in intrinsic motivation at higher education levels. Much more specific concerns include secondary school students being only marginally intrinsically motivated in science and mathematics; primary school students infrequently listing math as one of their favorite subjects; students' parents having math anxiety, which diminishes the benefits of home support in their children's learning; and students often stating that they are bored in class. These are some of the numerous and serious challenges faced by practitioners, researchers, and education policymakers alike.

The understanding of motivation in education has been immensely enhanced by education research based on major psychological theories of motivation, including Self-Determination Theory, Attribution to Failure Theory, Expectancy Value Theory, Achievement Goal Orientation Theory, and Self-Efficacy Theory. Some of these theories have inspired the exploration of motivational constructs within large-scale international comparative research on students' educational achievement, such as the OECD's Programme for International Student Assessment (PISA) and certain cycles of Trends in International Mathematics and Science Study (TIMSS), organized by the International Association for the Evaluation of Educational Achievement.

Different psychological theories of motivation conceptually and methodologically guide research efforts aimed at understanding education and educational achievement and the same is true for various theories of education. In this sense, what is paramount for education research includes not only psychological aspects but also aspects of education philosophy, upon which general pedagogy relies in its consideration of key pedagogical concepts and theories. The pedagogical tradition of continental Europe has long fostered more nuanced relationships between certain pedagogical notions and processes in comparison to the more narrow understanding of the concept of education as formal education in the English-speaking world. In this context, language is crucial. Much thought needs to be put into translating certain key terms in major pedagogical theories. For instance, the German concepts of *Erziehung* and *Bildung* represent distinct educational paradigms, which are often obscured by translating them both as *education*. Thus, future research on motivation in education should certainly dedicate greater attention to different conceptualizations of education.

As a perennial issue in education systems around the world, motivation in education is often seen as a key to solving large-scale social problems, such as economic growth and social cohesion. In many global and regional reform initiatives, schooling and education systems as a whole are viewed from the standpoint of economic logic and political goals, which can greatly diverge from authentic educational values. The increasing “pedagogization of society”, according to which root causes for different social problems lie in the inadequate education of children and youth, have put educational actors (individuals and institutions) in the unfair position of being held responsible for issues that run much deeper in society. Education systems, like all others, have their own autonomous goals and boundaries in relation to other systems. Thus, one of the burning topics in the field is the reexamination of the existing relationship between the school and society in contemporary education policies. In contrast to the unidirectional expectation from schools to prepare students for the ever-changing demands of the contemporary economy of knowledge and social participation, nowadays, expectations have also begun to flow in the opposite direction. This brings us to the increasingly common question posed by educators that begs contemplation and was eloquently formulated by Prof. Biesta: “...what society should ‘do’ for the school so that the school can be school...” (Biesta, G., 2022. *World-Centred Education*, New York and London: Taylor & Francis, p. 9).

THEMATIC AREAS, APPROACHES, AND CONTRIBUTIONS

With the strong belief that freedom of choice and pursuit of personal research interests yield the best results, we invited esteemed authors to contribute to this volume. There were no limitations in terms of the thematic focus, disciplinary orientation, or methodological approach. It is our position that diversity in approaches and perspectives is uniquely beneficial to research on motivation in education. The thirteen papers comprising this volume represent truly motivated responses to the relatively broadly framed topic. In the face of the dilemma of whether the thematic framework should be narrowed for convenience or expanded to encompass all identifiable dimensions of the issue, we chose the latter, more demanding solution, which has its own inherent implications. One of them pertains to organizing the content into a coherent whole.

As researchers and educators, we are interested in various aspects of motivation in education. Thus, the chapters of this book do not merely reflect individual research affinities but can serve as an overview of current research in the field. In the same vein, this volume offers a comprehensive and systematic insight into existing research on motivation at different education levels (primary, secondary, and higher education). Studies on the motivation of different actors are presented and analyzed in the book, including students, teachers, and parents, mostly in the context of formal education. The pedagogical approach to motivation in Marko Palekčić's *Pedagogical approach to motivation in the education system* represents a valuable source of inspiration for pedagogists, enticing them to renew their pedagogical interest in motivation problems. The author highlights the significance of the originally pedagogical theory of education and provides a more thorough analysis of the key pedagogical concepts, using the language and terminology of pedagogy as a science. Zvonimir Komar's *Interest as a principle of activity of the pedagogical subject* strongly advocates the reaffirmation of the pedagogical way of thinking. Interest constitutes a key concept in the pedagogical theory of J. F. Herbart, the founder of pedagogy as a science, and now more than ever, it is crucial for pedagogists to return to their roots. The marginalization of the pedagogical approach in contemporary reform initiatives at all levels of the education system largely stems from a lack of interest in the philosophical legacy and philosophical frame of thinking about education. What happens to education and what pedagogical implications arise when economic agendas take

primacy in education policies is explored in Biljana Bodroški Spariosu's paper entitled *A Conceptualization of motivation in higher education: The European Union educational policy*.

Psychological theories and psychological research on motivation in education have continuously and consistently made a major contribution to the understanding of education actors' motivational patterns and interpersonal relations as the context within which education takes place. Research on motivation in education represents a link between theory and educational practice and can contribute to the development of motivation theories and improve the quality of motivation of all participants in the educational process. Bo Zhu and Helen Patrick's paper entitled *Challenges for research on teacher motivation and emotion* provides a review of the relevant literature and empirical research in the field and identifies a significant improvement in knowledge about teacher motivation and emotion. They further note that future research should focus on questions regarding variability and change in teachers' motivation and emotion and the personal, subjective nature of these constructs. Parents are major stakeholders in every education system, which lends particular significance to Eleftheria N. Gonida's paper entitled *Parent motivational beliefs, student motivation, and learning outcomes: theory, evidence, and implication for practice*. The family context interacts with the school context, as both constitute main settings in which children live and operate. Furthermore, contemporary approaches suggest researching motivation in real-life learning environments, which would provide more realistic information about conditions and dynamic characteristics that contribute to student engagement in these contexts. The significance of cooperative learning and peer interactions for student motivation is the central focus of the paper entitled *Student motivation in a cooperative learning context* authored by Slavica Ševkušić. In the chapter *Boredom in the classroom and student motivation*, Ljiljana B. Lazarević provides an overview of studies investigating proneness to boredom, with a special focus on boredom in the school context and its consequences for learning outcomes. The paper entitled *Classroom practice and student motivation* by Nataša Lalić-Vučetić highlights the key variables and guidelines related to improving teaching practice, based on the results of numerous empirical studies that bring to the fore some crucial didactic and methodical principles for developing and nurturing motivation in the school context. Dušanka Lazarević authored the chapter entitled *Research on motivation in education: A systematic review of research in Serbian scientific*

journals in the period of 2000–2020. The author concludes that there is room for further diversification of research problems on fostering motivation in education. Greater theoretical and methodological diversity in research provides a broader basis for an improved understanding of student, teacher, and parent motivation and engagement in dynamic learning contexts.

Many student motivation constructs have been examined in large-scale international research on student achievement, relying on major psychological theories of motivation. A highly systematic and analytical overview of relevant research is presented in the paper authored by Jihyun Lee and Lazar Stankov entitled *A review of motivational and closely related constructs in PISA 2000 to 2018.* To improve future research on motivation using PISA data, existing motivational constructs should be more extensively featured.

A particularly significant contribution to the understanding of motivation in education is provided in three chapters featuring results of empirical research. Florian H. Müller is the author of the chapter entitled *Motivation in Science and Mathematics Education: A person-oriented approach.* The study was based on Self-Determination Theory and examined Austrian secondary school students from STEM classes (the sample comprised 1.321 students). One of the goals of the study was to identify motivational types that empirically differ in the quality and quantity of motivational regulation in STEM instruction. Another goal was to determine differences between types in terms of the perceived learning environment, process, outcome variables, and gender. Jelena Radišić and Francisco Peixoto authored the chapter entitled *Motivational mathematics profiles of primary school children: How do they really feel about math?* Adopting a person-centered approach and drawing on the expectancy-value theory, namely, expectancies of success and task values, this chapter investigates different aspects of primary school students' motivation in mathematics. The sample included 1.115 primary students from Norway, Portugal, and Serbia. Katre Kikkas, Äli Leijen, and Krista Uibu report the results of their research in the chapter entitled *Characteristics of the home learning environment related to students' motivation to learn mathematics in grades 3-5.* The paper provides an assessment of Estonian students' motivation to learn mathematics in primary school and identifies possible relations between students' motivation to learn mathematics and parents' at-home practices supporting this process. Background data and assessments of mathematics

motivation were collected from 464 students and 536 parents in Estonia through questionnaire surveys.

EDITORS' REMARKS

The papers collected in the book *Motivation in education: Challenges and different perspectives in research*, all written in the past two years, constitute an attempt to emphasize the significance of researching motivation in different educational contexts. The selection of these thirteen chapters was based on the desire to present a more comprehensive framework that would allow for the understanding of different individual perspectives in research on motivation in education. In spite of a certain degree of thematic dispersion, primarily stemming from authors' personal choices and professional preferences, the papers aim to encourage the resurgence of and reflection on critical issues in research on motivation and education (education philosophy – the dominant perspective on the nature of motivation in pedagogy; the conceptualization of motivation in higher education, motivation in mathematics and science in different countries; the motivational constructs of PISA and STEM education; the link between motivation and emotion and strategies for connecting these areas; parents' beliefs and student motivation; the learning environment and parental support; the contextualization of teacher motivation; teacher motivation and the development of the teaching profession; on motivation and boredom in class; different school practices and motivation; analyzing and reviewing published papers on motivation in journals; and more). Sharing their research results and thoughts on motivation and offering different insights and analyses, the authors showed immense dedication to this endeavor. They demonstrated their professional work in action and showcased it to actors in education as proof that it can be likened to a *case study* process aimed to encourage collaboration and active reflection.

We hope that this book will prove inspiring to students, professionals, and researchers of different persuasions. For editors of this publication, work on this volume was marked by open and personable communication with all authors. We consider it a great honor that researchers from nine countries (Australia, Austria, Estonia, Greece, Croatia, Norway, Portugal, Serbia, and the United States of America) accepted our invitation to contribute and supported this publication.

Their ongoing responsibilities at universities and scientific institutes did not prevent them from showing readiness and motivation to be a part of our author community. In a world riddled with crises, good intentions, collegiality, and mutual respect are more precious than ever. If it is true that collaboration best allows people to get to know one another, we can say that this task brought us the greatest satisfaction – a confirmation of *amor sciendi*.

At the end of this preface, we would like to thank our esteemed colleagues, Marko Palekčić and Eleftheria N. Gonida, for their support, inspiration, and friendly conversations, as well as our dear collaborators and esteemed colleagues, Florian H, Müller and Helen Patrick, for their thought-provoking questions and constructive suggestions. We further thank Ljiljana, Jelena, Peixoto, Jihyun, Lazar, Ali, Katre, Krista, Bo, Dušanka, and Slavica for their cooperation and perseverance during the process of transforming the initial idea into this volume. We express our profound gratitude to our reviewers, Prof. Şengül Anagün, the Osmangazi University, Turkey, Prof. Susana Rodríguez, University of Coruna, Spain, and Prof. Katja Košir, the Faculty of Arts, University of Maribor, Slovenia, for their readiness to participate in this project and elevate the quality of this monograph with their suggestions. In hopes that our cooperation forms a stepping stone for future collaboration between various institutions across Europe and beyond, we wholeheartedly thank our co-publishers, the Alpen-Adria University of Klagenfurt, Austria and the Faculty of Humanities and Social Sciences, University of Zagreb, Croatia. We owe our sincere gratitude to the Institute for Educational Research, for its instrumental role in the creation and publication of this monograph.

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