

**Future of Higher Education – Bologna Process Researchers' Conference,
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Session 2: Access, inclusion, completion and employability – responding to the needs of students and society

1. Beyond the Binary: A Comparative Analysis across Europe of Non-Binary Student Experiences and Methodological Considerations for Gender Measurement, *Johanna Dau (Institute for Advanced Studies, Vienna)*

Gender is a complex variable that is no longer understood as a binary construct. It is a constant task of social science to critically question variables and survey instruments and to close the gap between theory and empiricism. Thus, higher education research must also design the measurement of gender in such a way that gender-inclusive and theoretically valid results can be gained. To date, trans and inter students have hardly been included in the analyses of European higher education research. This paper presents the first European comparative analysis of non-binary students based on the EUROSTUDENT VII microdata set published in 2023 (Cuppen et al. 2023). This dataset covers 17 countries of which eight include information on more than fe(male) students. Bivariate-descriptive as well as multivariate analyses based on these eight countries show that students with a non-binary gender indication are more likely to be affected by psychological stress and financial difficulties across countries and are more often considering dropping out of their studies. Thus, non-binary students belong to the group of vulnerable and disadvantaged students whose inclusion is claimed to be essential in the “Principles and Guidelines to Strengthen the Social Dimension of Higher Education” (Advisory Group 1 on Social Dimension, 2020) for the European Higher Education Area (EHEA). The methodological obstacles encountered during the research process are used to reify the criticism of the operationalization of gender in quantitative research. Finally, possibilities for improved gender measurement are discussed. Accordingly, the paper provides answers to two research questions: 1. In which aspects does the study and life situation differ between students with a non-binary gender indication and those with a female or male gender indication in an international comparison? 2. How can a gender-sensitive and research-practical set of gender questions be implemented in student surveys?

2. Exploring Delayed Transition into Higher Education: A Comparative Analysis of Romania, Lithuania, Austria, and other European countries, *Sylvia Mandl and Martin Unger (Institute for Advanced Studies, Vienna)*

For the higher education system to be socially equitable it is commonly agreed upon by European higher education policymakers that the student body should mirror the social structure of the population (Rome Ministerial Communiqué 2020). Many countries have created alternative routes into higher education to address this issue, allowing students to enrol without having completed the traditional upper secondary education or to complete secondary education and start higher education later in life. This paper takes a closer look at the background of students with delayed transition into higher education, particularly in Romania, Lithuania, and Austria, using the EUROSTUDENT VII microdata set (Cuppen et al. 2023). Data shows that 23 percent of students in Austria, 11 percent in Lithuania and 10 percent in Romania enter higher education two years after leaving school at the earliest (excluding international students). While these groups show specific characteristics in each country, overall, it is less likely for them to study abroad, and they more frequently

report financial issues. Furthermore, students with a delayed transition to higher education are less likely to have parents with a university degree. However, they devote more time to their studies and are happier with their academic environment. The paper further discusses how studying later in life can be facilitated in the three selected countries and what support structures for students with delayed transition could look like.

3. Social inequality contested: Prior Learning Assessment in the context of displacement, *Lisa Unangst* (Empire State University, USA)

Building upon a growing attention to the intersection of displacement and student-centered higher education pathways, this paper draws upon the extant literature – encompassing grey literature and institutional reports as well as peer-reviewed publications – to analyse how displaced learners across the lifespan are pursuing Prior Learning Assessment (PLA) opportunities across world regions. This emphasis on pathways for those outside of the “traditional” college age range addresses the minoritisation of those learners within education scholarship and the increasing emphasis on degree attainment among those with “some college no degree,” who are increasingly in focus given demographic trends. Moreover, adult learners frequently balance added financial pressures and caring responsibilities against those resources that can be dedicated to study; the extant literature demonstrates that financial barriers present a significant challenge to participation in higher education. This analysis addresses the following research questions: how does the current literature address PLA serving displaced learners? Second, how does the grey literature produced by the 217 higher education research centers identified by the third edition of Higher Education: A worldwide inventory address PLA serving displaced learners? The purpose of this study is to provide an overview of institutional innovations and student experience in the recent past and the contemporary moment. The review will encompass a literature search targeting the date range January 1, 2000, to October 1, 2023. Importantly, this search is limited neither by discipline nor institutional type: a plurality of international education practices and programs worldwide are in focus with an eye towards catalysing those innovations across Europe in the years to come. Through those various interventions, the educational trajectories of individual learners holding statuses including refugee and asylee will be supported, as will the future rebuilding of current conflict states.

4. Connecting Academia and Business on the Quadruple Helix. Employers' Support to Optimize Training in Higher Education, *Venera-Mihaela Cojocariu, Elena Nechita, Gabriel Mareş, Liliana Măţă* (Vasile Alecsandri University of Bacău, Romania)

Following the Covid-19 pandemic, HEIs have been increasingly confronted with significant challenges at international, national, and regional levels: an important trend towards digitalization, the energy crisis, the need for sustainability, and the lack of human resource, to name only a few of them. Under these circumstances, an improved training of the graduates for the requirements of the labour market and their adaptability to the international standards stay in the focus of the universities.

The research question we approached was to identify the employers' representatives opinions concerning some possibilities to complement their specific actions and to make those consistent with the academic community actions in their joint endeavour to provide efficient training for the students.

The results displayed by the paper are part of a wider research conducted between April and September 2023, based on a combined methodology (quantitative and qualitative - questionnaire and focus group) which aimed the analysis of numerous facets of the university relations with the labour market. Our study presents, in a systematic manner, the results of the qualitative analysis of the collected data, revolving around the proposals and suggestions of the employers, which express their beliefs, hopes, and expectations that the initial training of the students can be improved. Universities (as pillars of the training) and the business sector (as beneficiary) should communicate and collaborate constantly, systematically, and more practically-oriented, so that human

resources are attracted, trained, and valorized at superior level. The suggestions integrated in this study could stay at the basis of new strategic initiatives in higher education, as well.

Moreover, the implications of successful training in universities are expected to have a significant impact on innovation and research, thus strengthening the link between academia and business in the quadruple helix ecosystem. Once more, this consolidates the role of HEIs in regional development and articulates the EHEA with the ERA.

5. The social dimension of higher education: an exploratory study for the validation of quality assurance indicators, Adrian Opre (Babes-Bolyai University, Romania), Cristina Ghițuică (University Politehnia of Bucharest) and Sebastian Pinteă (Romanian Agency for Quality Assurance in Higher Education)

The present study aimed to identify, generate, and validate a set of indicators of the social dimension of higher education in the context of quality assurance systems, with a focus on immigrant students and those with disabilities. For this purpose, two research methods were implemented: the systematic analysis of specialized literature and interviews with focus groups. The literature review sought to update conceptualizations and good practices in the European and national context. The focus groups were conducted with stakeholders of the social dimension of higher education: academic and non-academic staff, migrant students, and students with disabilities. The corroborated results revealed a complex structure of potential indicators. The most important criteria were: the category of beneficiaries (students with disabilities and migrant students), the reflected social value (equality, equity, diversity, and inclusion), the characteristics of measuring of social inclusion (aimed at students or at academic and non-academic staff), the method of collection of the indicators (top-down or bottom-up), the stage of the educational process to which the indicators refer (outreach, admission, participation, graduation and post-graduation, the level of implementation of the measures (primary measures and secondary measures /meta-measures. The indicators identified/generated in this study allow multiple uses. In relation to the objective of the study, the most important is the possibility of use in the evaluation of the social dimension of higher education in the context of quality assurance systems.

6. The need for tailored support for long-term students, Franziska König and Bettina MJ Kern (Technical University of Vienna)

Long-term students in higher education are characterised by extended durations of study well beyond the expected or typical completion time. Extended durations of study pose a persistent problem to higher education institutions in Austria, as they rely on their students graduating in a timely manner for budgetary reasons. Despite the significance of the issue, long-term students are currently an understudied topic in higher education research. This paper investigates subgroups of long-term students and discuss potential barriers to successful graduation.

The data used for this study are records from a technical university which include enrolment information, exams, and grades. There are 50 cases of registered students (as of August 2023) who enrolled in the Software and Information Engineering (SIE) bachelor programme between 2011 and 2016, have completed over 160 ECTS points, and have neither graduated nor dropped out.

Results indicate there is a subgroup among the long-term students struggling with the bachelor thesis while others struggle with specific exams, either repeatedly failing or not attempting them. A subgroup of these students is continually active, completing only one or two courses each semester, but doing so persistently. The university records unfortunately do not contain any information on why this is the case, since the data only contain information on the long-term students' academic performance and administrative status. To shed

some light on the issue, a representative sample of long-term students would need to be surveyed and asked about their living circumstances.

The findings show that not all students who study for a long time without graduating need help, while others struggle, especially with the bachelor thesis. This illustrates that a more fine-grained understanding of the reasons for extended study duration is required if universities want to develop support structures for long-term students that actually meet their needs.

7. Do Early Signals Count? Exploring Potential Root Causes of University Dropout, Ștefan Marius Deaconu (University of Bucharest), Roland Olah (UEFISCDI) and Mihai Cezar Hâj (UEFISCDI)

This research explores the elements that influence the likelihood of dropout among university students, starting from the study case of Romania. It aims to develop a comprehensive picture of this pressing educational issue using the data from the National Student Survey in Romania (NSSS-RO) and EUROSTUDENT VII conducted between 2020 and 2021. Notably, the NSSS-RO collected responses from various cohorts, ranging from individuals who followed both bachelor's and master's degree programs with the anticipation of their graduation by Summer 2023.

A distinctive feature in the research concerns the latest dropout definition and measurement model for Romanian public higher education institutions. This model, developed by Herteliu et al. in 2022, serves as a conceptual foundation for the analysis. To accurately determine the NSS-RO respondents who dropped out, we utilized the survey results and data from the National Student Enrolment Registry (RMUR). This data merging was indispensable in identifying which respondents from the NSS-RO ultimately abandoned.

The analysis identified several factors that can affect a student's decision to continue or discontinue their academic journey. Its primary objective is to determine which indicators from the NSS-RO and EUROSTUDENT VII survey, such as satisfaction with teaching and learning, university infrastructure, learning outcomes, or student support services, can predict the students' dropout with a higher degree of probability.

A second focus of this study is to understand the extent to which specific student characteristics, as catalogued in the NSS-RO, impact dropout or the completion of their education in Romanian HEIs. Following on students' educational landscape, the study examines pre-entry characteristics, notably the Bacalaureate Exam, and how they could help to forecast dropout tendencies compared to NSS-RO answers.

This paper explores whether students' challenges amid the COVID-19 pandemic led to an enhanced dropout rate among NSS-RO respondents. It examines how their structural and pedagogical changes have affected student dropout rates. It focuses on some indicators that could be used to monitor and improve student retention, especially in a disruptive situation.

This research aims to comprehensively understand the various factors contributing to student dropout rates in Romania. By conducting thorough data analysis and placing the findings in the context of the broader academic debate, it intends to provide actionable insights to policymakers, educators, and stakeholders to improve student retention strategies.

8. Ascending the Social Ladder: Exploring Professional Advancement and Employability Among First-Generation Graduates in Romania, Ștefan Marius Deaconu (University of Bucharest) and Alina Roiniță (Ministry of Education, Romania)

This study delves into the impact of higher education on the employability of first-generation students, with an analysis of the interplay between education, socio-economic background, and career prospects. The study begins by examining the data from the National Survey on the Employability of Higher Education Graduates (CNAAIS). The discussion primarily focuses on employability outcomes, identifies influential factors, and evaluates institutional interventions to shed light on the employability gap that first-generation students often face.

To address some problematic aspects that require further clarification, the CNAAIS data will be analysed. The results of the survey demonstrate that the employability process of a higher education graduate can be correlated with different types of influencing factors, including educational-related, socio-economic-related, general, or specific variables, such as other types of professional experiences during university studies. However, a particular conclusion that can be drawn from the data is that first-generation students tend to earn lower median incomes and have a higher overqualification rate than their peers with at least one parent with a higher education degree.

Despite this, first-generation college students tend to develop more in-depth skills in some areas, such as foreign languages or introductory and advanced IT, than their colleagues from a more educated family background. However, these skills are not sufficiently leveraged to overcome the discrepancies that appear among first-generation students and those with a history in education. Hence, it is crucial to consider variables such as networking, professional mentoring and coaching, or simultaneous development of other types of highly needed skills for the labour market, such as capacity to negotiate. Additionally, discrimination that might arise against first-generation students when it comes to employability due to their socio-economic status or biased hiring practices should also be considered.