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**Integrating education with human behaviour relevant to influence of
coronavirus and negative emotions in a built environment
(MICROBE)**

**Partner country report on current state of higher
education and its relationship with humans' behaviour
on influence of coronavirus and negative emotions in a
built environment**

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1 INTRODUCTION

The purpose of this series of country reports is to obtain general philosophical, pedagogical and practical understanding on the status of higher education and its impact on minimizing the influence of coronavirus and negative emotions in a built environment by applying behavior change in partner countries. It will also provide a basis for understanding and evaluating the capabilities of partner institutions on integrated education for influence of coronavirus and negative emotions in a built environment. The results of these reports will inform a capacity building framework, which will form the basis for development of modules on influence of coronavirus and negative emotions in a built environment during the MICROBE project. The reporting approach is based on the Capacity Needs Assessment Methodology (CAPNAM) proposed by the United Nations (2013).

The report includes chapters on the following:

- Context. Provides an overview of the regulatory, socio-political, and cultural factors that shape policy on the human behaviour relevant to influence of coronavirus and negative emotions in a built environment in the country in general, and education in particular.
- Scope and coverage of education policies on influence of coronavirus and negative emotions in a built environment by the Higher Education Institution (HEI). Examines the illustrative policy and planning issues relevant to integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment.
- Description of capacity types. Evaluates the existing state of capacities of HEI in the field of integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment. As defined by the CAPNAM analytical framework, the four types of categories are institutional, organisational, individual, and the knowledge base.

The content of this report is related to the MICROBE Project and reflects only the author's view. The National Agency and the Commission are not responsible for any use that may be made of the information it contains.



2 CONTEXT

This section provides an overview of the regulatory, socio-political, and cultural factors that shape policy on the human behaviour relevant to influence of coronavirus and negative emotions in a built environment in the country in general, and the education in particular. Please answer following questions.

2.1 Socio-political and cultural context

What are the socio-political and cultural contexts providing the framework for educational policy planning in the field of human behaviour relevant to influence of coronavirus and negative emotions in a built environment in the country? Are there any regulations, plans, etc.?

COVID- 19 cases have increased significantly in Bulgaria.

Total Coronavirus Cases in Bulgaria

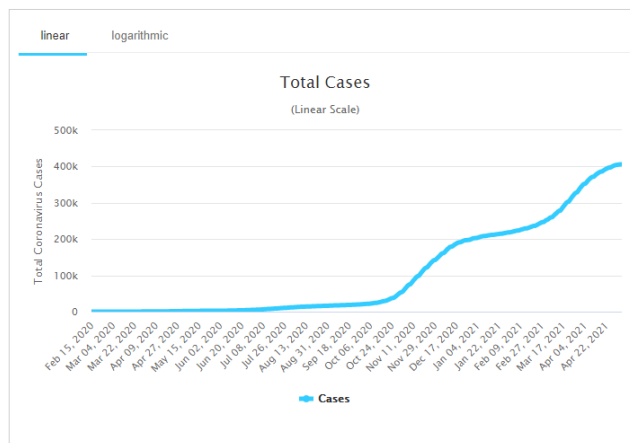


Fig. 1. Total coronavirus cases in Bulgaria (Worldmeter, 2021)

It was decided, on an extraordinary government meeting (26.01.2021), the emergency epidemic situation to be extended to April 30, 2021. The Government of the Republic of Bulgaria has created an official website for information on Covid-19 situation in Bulgaria: <https://coronavirus.bg>

The COVID-19 pandemic constitutes the largest global public health crisis in a century, with daunting health and socioeconomic challenges. Trying to control the pandemic, EU governments have put in place a series of restrictive measures, including ‘social distancing’, school closures and then effective lockdown. Young people are already among the most affected by the socioeconomic impacts of the coronavirus response, according to the survey conducted in April 2020 by Eurofound among 85,000 citizens across all EU countries. The results show how young people in Europe are struggling to respond to the crisis, reporting poorer mental wellbeing and greater loneliness than other age groups – coupled with job loss and a dramatic decrease in working time and overall insecurity about their professional and financial future. Young people,



especially socioeconomically disadvantaged ones are more likely to suffer from infection control measures and to be hit particularly hard by the economic ramifications of COVID-19.

For young people, the COVID-19 crisis poses considerable risks in the fields of education, employment, mental health and disposable income.

According to Eurostat, in May 2020, a third month marked by COVID-19 containment measures in most Member States, some 2.815 million young persons (under 25) were unemployed in the EU, of whom 2.267 million were in the euro area.

The survey also found that some 15% of the respondents aged 18-34 reported feeling downhearted or depressed most of the time, 20% reported feeling lonely, and 21% reported feeling particularly tense. The survey indicates that more than half (53%) were at-risk of depression.

2.2 Status of education

What is the current state in education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment? Is it important at your country? Please specify.

Bulgarian universities do not have BSc or MSc study programmes or separate disciplines on COVID-19.

Bulgarian universities have various modules in BSc/ MSc on urban planning:

1. **University of architecture, civil engineering and geodesy, Sofia, Bulgaria:** <https://uacg.bg/?p=157&f=1&dp=11&l=2>

The department of Urban Planning has a leading role in the teaching process of the Bachelor's programme "Urbanism" and Master's Programme in Urbanism.

The Department provides student training in the following disciplines: Urban Planning, Park and Landscape Architecture, Regional Planning, Management in Urban Planning, Architecture, Sociology of Architecture, Ecology in the Regional Planning, Urban Planning and Architecture, Methods for Analysis of Urban, Architectural Environment.

2. **"Angel Kanchev" University of Ruse:** <https://www.uni-ruse.bg/en>

The Faculty of Mechanical Engineering offers the following specialties: mechanical engineering; mechanics and mechatronics; metrology quality management; industrial engineering; materials and technologies.

The Council of Ministers of the Republic of Bulgaria accepted in May 2020, the establishment of a Technology research institute at the University of Ruse.

3. **University of forestry:** <https://ltu.bg/en/>

The mission of the Faculty of Ecology and Landscape Architecture is to prepare highly qualified specialists with higher education in ecology and environmental protection and landscape architecture. Faculty trains students in two specialties - Ecology and Environmental Protection and Landscape Architecture.

4. **Higher construction school "L. Karavelov "** with a long tradition in the training of specialists with higher education in the field of construction and offers students training at a modern level.



It prepares highly qualified construction personnel of all educational and qualification degrees - "professional bachelor", "bachelor", "master" and "doctor": <https://www.vsu.bg/page/mission-and-vision>

The faculty of architecture offers a masters' programme Urbanism.

Modules related to depression, stress, emotions, psychology are taught in the Psychological, Philosophy, and Public Health and Social Sciences Faculties of Bulgarian universities:

- ✓ Sofia University: https://www.uni-sofia.bg/index.php/bul/universitet_t/fakulteti/filosofski_fakultet/specialnosti/bakalav_rski_programi
- ✓ New Bulgarian University: <https://www.nbu.bg/>
- ✓ University of Veliko Tarnovo "Sv.Sv Kiril I Metodii": <https://www.univt.bg/bul/spec/speclist.aspx?sptype=2&tab=azb>

2.3 Funding

Is funding sufficient for integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment at your country? Please specify.

- There is not sufficient special funding for curriculum development in Bulgaria;
- There are not funding procedures for education on human behavior relevant to influence of coronavirus and negative emotions in a built environment, in Bulgaria;
- Funding in the field of research is mainly via grants and projects.

2.4 Educational needs

What are the needs in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment (please list up to 5 major needs at country level):

Bulgarian government has created Recovery and Sustainability Plan of the Republic of Bulgaria-October 2020. The main goal of the Recovery and Sustainability Plan is to promote economic and social recovery from the crisis caused by the COVID-19 pandemic. In pursuit of this goal the government groups a set of measures and reforms, which would not just restore the growth potential of the economy, but develop it by ensuring resistance to negative external impacts. This will allow in the long term the achievement of the government's strategic goal of convergence of the economy and incomes to the Central European ones. At the same time, the plan lays the foundations for a green and digital economy, in the context of the ambitious goals of the Green Deal.

Based on UNICEF research (<https://www.unicef.org/eca/rapid-assessment-covid-19-impact-education-bulgaria>) there might be listed several educational needs in Bulgaria:

1. Financial measures
2. Educational modules
3. Digitalization



UNICEF data also indicates the need for financial and flexible employability measures for families, so that they better support their children at home, especially now with an increase in online studying.

The research validates the need for specially designed online learning resources, tailored to the needs of children with disabilities. These and other recommendations are reflected in the development of an interactive platform in support of children with disabilities, a joint intervention of UNICEF and the MoES. Last, but not least, the evidence will support the discussion on the need for a blended learning national strategy, in Bulgaria.

The Republic of Bulgaria is among the first countries which signed in 1999 in Bologna the Joint Declaration for European Higher Education Area.

The higher education governance is performed at state and institutional level. The state is responsible for the development and the implementation of a long-term national policy and establishment of conditions, which guarantee the academic autonomy of higher education institutions, the quality of education, and the provision of adequate conditions for performing scientific research.

The institutional management is performed according to the rights for an academic autonomy of the higher education institutions, but the state assists for development of modern institutional governance through distribution of resources on a competitive basis.

Bulgaria works actively towards building up of a favorable environment for modernization of higher education, in line with the needs of the society and of the business. Good practices are studied and multiplied. Possibilities for introduction of new models, which are related to application of modern approaches for institutional governance leading to better financial management, are studied.

2.5 Educational gaps

What are the gaps in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment (please list up to 5 major gaps at country level):

Although face-to-face education was replaced by online education due to the COVID-19 pandemic, not all students were able to access it, thus increasing existing educational inequalities.

The COVID-19 pandemic led to the closure of all kindergartens and schools in Bulgaria, as of March 2020. This had an impact on the over 700,000 pre-school and school aged children and their parents. To study the impact, UNICEF commissioned a nationally representative research exploring economic, social, educational, psychological and organizational aspects of the effects of COVID-19 on education. The methodology included: questionnaires for students, parents and teaching staff in pre-schools and schools; interviews with education experts from municipalities and education mediators; and, case studies on good practices to support the most vulnerable children, aiming to improve and enhancing innovation in online teaching.

The most severely affected by school closures were children from families living in poverty, and children whose parents have been unemployed long-term and/or economically inactive. This UNICEF research reveals the overwhelming impact for disadvantaged children and families, as 3.5% of parents have difficulty covering the daily cost of food, and 40% need help raising their child so they can go to work.



At least 50 000 school-aged children were left behind. Although Bulgarian schools switched to remote learning right after the pandemic-related school closures were announced, many vulnerable children could not take advantage of it.

For every third student, the main barrier to access is the lack of devices or internet. 8.3% of students did not participate in distance learning, or did not participate regularly, and 57.9% of parents expect that more children will not participate in the next school year. Only 35% of pre-schools continued the interaction with children through parents and caregivers, as no alternatives were developed. Only 63% of inclusive education specialists worked with children with disabilities during the state of emergency on a regular basis, supporting only less than half of the children with disabilities they normally support.

The learning crisis has deepened, as every fifth student reports worse educational outcomes than before. During the pandemic, monitoring of attendance was insufficient, and important tests and activities canceled. Every second teacher was concerned that students will lose desire and motivation to learn, and 45% of teachers thought the number of children who will not participate in school activities will increase. Another 40% of teachers were concerned that distance learning will have a negative effect on students' educational outcomes.

During the lockdown parents were the main resource for children, particularly for children with disabilities. However, only 20% of all parents felt fully prepared to support their children during distance learning, while 50% of parents shared their failure to support their children in education.

Half of all students felt lonely, insecure and angry.

In addition to learning loss, another key aspect of the negative impact of the pandemic on education is the social-emotional one toll. Half of students reported experiencing negative feelings, such as loneliness, insecurity, irritability, and anxiety due to reduced social contacts. Over 35% of parents assess their children's mental health as worse than before the pandemic. Likewise, 60 % of teachers share that their work commitments increased significantly during distance learning, and 44% of them reported their mental health to be worse than before. This clearly indicates the need for psycho-social support in education, for students and teachers, in the coming years.

Evidence from the research influenced the development of the National Framework for the re-opening of schools. To further strengthen the resilience of the education system and support the Ministry of Education is developing innovative measures to fulfil the gaps and address the increasing inequalities, the evidence was used to develop a Guide for education provision in situation of COVID-19 pandemic, with practical checklists, tools, and promising practices to build-back better schools. Special attention is paid to the social-emotional wellbeing of students and teachers, also incorporated in the UNICEF and MoES joint program for creating a safe school environment.

UNICEF data also indicates the need for financial and flexible employability measures for families, so that they better support their children at home, especially now with an increase in online studying. The research validates the need for specially designed online learning resources, tailored to the needs of children with disabilities. These and other recommendations are reflected in the development of an interactive platform in support of children with disabilities, a joint intervention of UNICEF and the MoES. Last, but not least, the evidence will support the discussion on the need for a blended learning national strategy, in Bulgaria.

The pandemic is an opportunity to fill in the missing educational needs in terms of dealing with the negative impact of the COVID-19 crisis.



The new approach is connected with innovative modules and methods in the field of research, development, etc.

There is not an educational initiative on human behavior related to COVID-19 impact by this time.

3 POLICIES RELEVANT TO HIGHER EDUCATION, AND THEIR RELATIONSHIP WITH HUMAN BEHAVIOUR ON INFLUENCE OF CORONAVIRUS AND NEGATIVE EMOTIONS IN A BUILT ENVIRONMENT

This section examines the illustrative policy and planning issues relevant to integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment. Please answer following questions.

3.1 Policy and planning

Please describe policy and planning issues currently being addressed by the HEI in the field of integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment.

Key recommendations for Bulgaria, according to economic reviews of the Organisation for Economic Co-operation and Development are: fiscal and financial policy to mitigate the effects of COVID-19; improving the business environment and management for a more stable recovery after COVID-19; support for the decarbonisation of the economy; promoting inclusion and improving regional development.

Education

All universities and schools in Bulgaria have closed and continued their activities on-line, due to the COVID-19 pandemic. Medical University in Sofia, for example, gives students the opportunity to apply for financial incentives for volunteering in Covid-19 hospitals' sections.

Urban planing

The Ministry of regional development and public works announced a plan for recovery and sustainability of the Republic of Bulgaria in October 2020. In conditions of high degree of uncertainty caused by COVID-19 pandemic, containment and control its spread, as well as dealing with the extraordinary consequences from it, are the main tasks of the government.

Strategic planning of regional and local development covers a system of regulated documents in order to achieve smart, sustainable and inclusive growth and high employment. The Minister of Regional Development and Public Works gives methodological instructions for the development of the documents for strategic planning of the regional and local development and organizes the elaboration of the National Strategy for Regional Development and the regional development plans. The process of developing and implementing these documents is based on cooperation between regional development authorities, the economic, social partners and civil society.

The Regulation with General Provisions (CPR) for the European Structural and Structural Sciences investment funds - Regulation (EU) 1303/2013 regulates for the first time the implementation of



integrated territorial investment (ITI) as an instrument of cohesion policy for the programming period 2014-2020. To emphasize the importance of the territorial dimension for policies, the draft CPR for the new programming period (2021-2027) also introduces a policy objective specifically dedicated to the territorial approach "Europe closer to its citizens by promoting sustainable and integrated development urban, rural and coastal areas and local initiatives".

One positive trend of the COVID-19 pandemic is that for the first time since 2007, more people have settled in Bulgaria than have emigrated. The mechanical growth is 30,715 people. The second positive trend is that, perhaps for the first time in a century, there is a movement not towards cities but towards villages.

Negative emotions

There is not an official strategic plan for reducing the impact of COVID-19 on mental health, in Bulgaria, by now. Steps are being taken in this direction.

To determine the effects, a national representative study on the economic, social, educational, psychological and organizational aspects of the impact of COVID-19 on education was commissioned by UNICEF, Bulgaria. The methodology included surveys for students, parents and educators in pre-school and school, interviews with municipal education experts and educational mediators, as well as good practice cases to help the most vulnerable children, to improve online teaching, and to promote innovation in it.

Half of all students felt lonely, insecure and angry; Every fifth student has worsened their success; UNICEF justifies the need for financial measures and flexible employment for families to be able to better support their children at home, especially as more and more classes and schools move to online learning. The study proves the need for specially developed and tailored online learning resources for children with disabilities, and the recommendations are reflected in the development of an interactive platform in support of children with disabilities, which is a joint activity of UNICEF and Ministry of Education and Science.

Policy recommendations (Education during COVID-19 and beyond: United Nations, August 2020)

Preventing the learning crisis from becoming a generational catastrophe needs to be a top priority for world leaders and the entire education community. This is the best way, not just to protect the rights of millions of learners, but to drive economic progress, sustainable development and lasting peace. In this regard, decision-makers are encouraged to pursue the following recommendations and actions: suppress transmission of the virus and plan thoroughly for schools reopening; protect education financing and coordinate for impact; strengthen the resilience of education systems for equitable and sustainable development; reimagine education and accelerate positive change in teaching and learning.

3.2 Gaps in policy and planning

Please describe other, if any, policy issues that are not currently being handled by the HEI but should be considered.

Since the beginning of the COVID-19 outbreak, UNICEF has supported education continuity and enabling student learning, with a focus on the most marginalized children. UNICEF efforts have focused on supporting Ministries of Education and related Government agencies in establishing, selecting or improving distance and online learning systems; monitoring the impact of school closures on the quality of education provided, particularly through distance learning platforms,



and on learning outcomes; and supporting parents and caregivers in guiding children in home-learning and in providing psychosocial support.

The Council of Ministers of the Republic of Bulgaria developed a strategy for development of higher education in the Republic of Bulgaria for the period 2021 – 2030. The analysis of the achievements in recent years and the new challenges in front of the HE system shows the need to prepare and adopt a new one Strategy for the development of higher education in the Republic of Bulgaria to outline vision and to ensure sustainable development of the HE system in the Republic of Bulgaria for the period 2021 - 2030.

N.B. The responses to these questions do NOT require describing each policy and planning issue but only the identification of the type of issues being addressed and those not being addressed. The questions are only meant to understand the scope of coverage of important issues by the HEI.

4 CAPACITY TYPES (Universities answer all points. Italy and Bulgaria give answers optionally)

This section aims at assessment of the existing state of capacities in the HEI for integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment. As defined by the CAPNAM analytical framework, the four types of categories are institutional, organizational, individual, and the knowledge base.

4.1 Institutional capacities

This part describes the institutional capacities at HEI level. Please answer following questions.

1. Please provide brief presentation of the HEI: N/A
2. Please describe general model of studies according to different levels (bachelor, master, PhD): N/A
3. Please provide key facts and figures about the HEI: N/A
 - 3.1. Number of students
 - 3.2. Number of academic staff
 - 3.3. Student/Academic staff ratio
 - 3.4. Number of Faculties (please specify)
 - 3.5. Number of graduates: 1900
 - 3.6. Number of study programmes
 - 3.7. Number of international academic partners
 - 3.8. International rankings of the HEI (if any)
4. Please describe main education and research areas of the HEI: N/A



5. Is there any strategic priorities given to integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment at HEI level? Please specify: N/A
6. What are the needs at HEI in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment (please list up to five major needs): N/A
7. What are the gaps at HEI in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment (please list up to five major gaps): N/A

4.2 Organisational capacities

This part describes the organisational capacities pertinent to integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment at HEI. Please answer following questions.

1. Is integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment sufficiently included in the curricula of HEI? Please specify according to different levels (bachelor, master, PhD): N/A
- 1.1. Study programme level (Please list relevant study programmes)
- 1.2. Study subject level (Please list relevant study subjects/modules)
- 1.3. Study topic level (Please list relevant study topics)
2. Is funding sufficient for integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment at HEI? Please specify: N/A
3. What are the needs at HEI in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment related to organisation of study process (please list up to five major needs): N/A
4. Please list up to five major gaps in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment related to organisation of study process: N/A

4.3 Individual capacities: Staff skills

This part describes the individual staff capacities pertinent to integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment at HEI. Please answer following questions.

1. How many academic staff works at your unit? (which implements the project): N/A
2. Is there sufficient number of teachers who specialise in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment? How many? N/A
- 2.1. At university level
- 2.2. At your unit/department



3. Is there sufficient number of researchers who specialise in human behaviour relevant to influence of coronavirus and negative emotions in a built environment? How many? N/A

3.1. At university level

3.2. At your unit/department

4. Please describe the current state of the staff training in HEI. Is it sufficient? N/A

5. Please describe the current state of the staff training on human behaviour relevant to influence of coronavirus and negative emotions in a built environment. Is it sufficient? N/A

6. Does the academic staff have flexibility in designing its own skill development plans or does it have to follow a centrally determined package? N/A

7. Is there staff stability, or does it suffer from high turnover among such professionals? N/A

8. What staff skills are required for integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment (please list up to five major needs): N/A

9. Please list up to five major gaps in integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment related to staff skills: N/A

4.4 Access to Information, Knowledge and Technology

Access to information, knowledge and technology is becoming increasingly critical for sustaining long-term growth and development of education. It relates to the capacity to enable academic staff and students to mobilize, access and use information and knowledge, including access to and effective use of internet. Please answer following questions.

1. Do students and teachers have access to the novel educational resources on human behaviour relevant to influence of coronavirus and negative emotions in a built environment? Please specify: N/A

1.1. Printed learning materials in national language: N/A

1.2. Printed learning materials in English or other languages: N/A

1.3. Online learning materials (open-source videos, simulators (calculators and software), case studies, text material) in national language: N/A

1.4. Online learning materials (open-source videos, simulators (calculators and software), case studies, text material) in English or other language: N/A

2. Does HEI use MOODLE for educational purposes? N/A

3. Does HEI use computer-based intelligent systems, MOOCs, computer learning systems, big data mining for educational purposes? Please specify: N/A

4. Does HEI use software for integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment? Please specify: N/A

5. What Information/Knowledge/Technology is required for integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment (please list up to five major needs): N/A



6. Please list up to five major gaps in access to information, knowledge and technology pertinent to integrated education on human behaviour relevant to influence of coronavirus and negative emotions in a built environment: N/A



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