Future Skills

The future of learning and higher education

The Future Skills Report
International Delphi Survey

Annex C – Questionnaire Round 2

03/2019

Disclaimer

The Future Skills Report presents information and data that were compiled and/ or collected through a research team from Baden-Wurttemberg Cooperative State University in Karlsruhe, Germany. This document entails Annex C of the Delphi study.

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Information about the Project

This Delphi Survey is part of the Research Initiative on "Future Skills – Future Learning and Future Higher Education", which started in 2015. It includes research on learning and change on organizations pathways to the future, their conceptions of the future workplace and the definitions of futures skills and involves data- and methodological triangulation in three separate modules building on each other.

Module A: Analysis of future organizations competence and skill development concepts through expert ratings from a sample from more than 120 business and public organizations in order to identify advanced future organizations (2015-2017).

Module B: In-depth interview series with more than 20 HR-, change- and business experts as well as students on future skills, future learning and future higher education from 17 different future organizations (2017-2018).

Module C: Delphi Survey on future skills, and drivers and scenarios for future learning and future higher education (2018-2019).

Get more information on the projects here:

www.next-education.org – Information on the research group and related projects
www.nextskills.org – Information about the Future Skills Project

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Future Skills – The Future of Learning and Higher Education
International Delphi Survey

Annex C

Delphi Survey "Future Skills – Future Learning – Future Higher Education", Round 2

Welcome

Dear Expert!

Thank you once again for your participation in the Delphi Study on "Future Skills – The Future of Learning and Higher Education", and specifically for taking part in this 2nd round of the Delphi now!
The study has already raised a lot of interest and we will be happy to provide you with the first results in return for your helpful participation very soon. While the first round of the Delphi focused on validating formulations and concepts for future higher learning, this second round is focusing on the speed of adoption of the future development in higher education.

Participation in this round will take less time than the first, probably about 15 minutes, depending on the intensity of your engagement. We will ask you to enter your email address and contact data at the end of the survey, so that we can share the result reports with you. However, your answers and information given will be kept with highest confidentiality and just for the purpose of this study.

In case of your agreement your name, job title and institution will be included in the final publication in acknowledgement of your participation to this Delphi study.

Thank you very much for supporting this important research!

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Delphi Survey "Future Skills – Future Learning – Future Higher Education", Round 2

Part 1: Time of adoption for future higher education scenarios

Before we get started some short explanation:

This time it is about your opinion on the "time & pace of adoption" of the future developments in higher education. It is working with validated statements and concepts which have been refined and reformulated, taking into account your opinions and comments from the first round of answers.

The survey consists of two parts:

Part 1 Driving Factors & Future Scenarios
- **Topic 1: Topic 1 asks for your opinion on the time of adoption of the four driving factors changing higher education in the future.**
- **Topic 2: Topic 2 asks your opinion on the time of adoption of future scenarios about higher education.**
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Part 2 Future Skills
- **Topic 1: Individual learning experiences**
- **Topic 2: FutureSkills**

Delphi Survey "Future Skills – Future Learning – Future Higher Education", Round 2

Part I: Driving factors & scenarios for the future of higher education

I. Driving factors

An analysis of research literature on changes in higher education reveals many important factors, which influence higher education development. In round 1 of the Delphi, a number of consequences resulting from these influences have been rated and commented by 46 international experts. These statements have then been reformulated, taking into account the experts' judgements and comments.

Below, we are presenting the validated set of statements and would like to ask you to estimate the pace of adoption of the four main determining factors of change for higher education. **Please select the timeframe in which you believe the developments represented in the statements are becoming relevant for higher education.**

Factor 1: An emerging focus on future skills radically changes the current definition of graduate attributes in higher education.

Description: The focus on a "next mode" of studying (focus on future skills: autonomous learning, self-organization, applying & reflecting knowledge, creativity and innovation, etc.) gradually replaces a reduced/ narrow focus on academic and valid knowledge acquisition as a means to provide correct answers for known questions based on a curriculum which is focused on defined skills for fixed professions.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
◯	◯	◯	◯

Factor 2: Higher education increasingly becomes a multi-institutional study experience.

Description: The provision of higher education increasingly moves from a 'one-institution' model to a 'multi-institution' model in which higher education is provided through alliances of several institutions.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
◯	◯	◯	◯

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Factor 3: Students build their own personalized curriculum.

Description: The elements of choice in academic programs enlarge. The curriculum of academic programs moves from a fully predefined and 'up-front' given structure to a more flexible, personalized and participatory model in which students actively cooperate with professors/ teachers/ advisors in curriculum building of higher education programs.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

Factor 4: Higher education institutions turn towards providing offerings for lifelong higher learning services.

Description: The current model of higher education, to prepare students (up front) for a future profession, is equally complimented with higher lifelong learning offerings.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

In case you want to comment on the above statements, please use this space (**optional**).

Thank you for your opinion on these first four aspects!

Delphi Survey "Future Skills – Future Learning – Future Higher Education", Round 2

Part I: Driving factors & scenarios for the future

II. Adoption time for future higher education scenarios

The majority of participants of the first round of the delphi survey agreed that future skills, personalization, new study pathways and lifelong learning would lead to change in higher education. These four determining factors can be used to create foresight scenarios for higher education. In order to gain a clear picture of the state of development and the pace of change, we are now asking for your opinion on the pace of change for the four future scenarios presented below.

Please use the rating scale below each scenario to indicate whether in your opinion, the scenario is already reality or how long you think it will take each scenario to come true. After estimating the adoption period, please briefly explain the reasons for your judgement.

Future Scenario 1: The 'future skill' university

The 'future skill' scenario suggests higher education institutions leaving the current model of focusing on knowledge acquisition. Instead, new profiles are developed that emphasize graduates' future skill development. In this scenario higher education is mainly organized around one main objective: to enable the development of graduates' future skills, i.e. complex problem solving, dealing with uncertainty or developing a sense of responsibility, etc. This is not replacing but going beyond the current emphasis of knowledge acquisition and studying based on defined curricula for fixed professions. It is rather emphasizing students' focus on reflection of values and attitudes, application of existing and creative development of new knowledge and methods. The main ambition is to enable students to act in unknown future contexts in their field of profession.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

Please provide a brief explanation for your judgement here.

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Future Scenario 2: The multi-institutional university alliance

In this scenario the standard higher education experience is shifting from a "one-institution" model to a "multi-institutional" model. Academic programs in this scenario are provided through alliances of higher education institutions, and enable students to choosing individual 'patchwork-like' study pathways, across institutional boundaries. This is becoming possible through cooperation as well as digital import and -export of curricula. From a student's perspective, institutional boundaries become less visible. A diversification of academic providers takes place, with some institutions specializing in certification while others are focusing on delivery and learning.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
◯	◯	◯	◯

Please provide a brief explanation for your judgement here.

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Future Scenario 3: The "My University" model – personalized higher education

In this scenario students study according to personalized curricula. They are guided by professors/ teachers/ advisers to become autonomous learners and engage in building their own curriculum by choosing and assembling their course portfolio from across several academic programs and institutions. This is not neglecting the important role of introductory and foundational phases in early study cycles (e.g. Bachelor). However, "studying" in this scenario always focusses on involving students to develop their own (micro-)curricula, choose content and learning-pathways, supporting them in their development of autonomy and self-organization. Disciplinary boundaries of academic programs are more flexible and allow for students' individual study pathways across disciplines. The leading point of orientation is students' increasing degree of autonomy, self-organisation and their personal study needs, as well as their future professional context.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
◯	◯	◯	◯

Please provide a brief explanation for your judgement here.

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Future Scenario 4: The Lifelong Learning University

In this scenario, seamless lifelong higher learning is as important as initial higher education. Learners in the workplace are the main type of student. Students choose their portfolio of modules according to their personal skill needs and competence demands with high autonomy throughout their lifetime. Institutions offer micro-credentials, which students assemble individually, based on their own interests. Recognition of prior study achievements and practical experience enable permeable shifting between different providers, which offer to bundle prior learning experience into larger certifications.

already happening	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

Please provide a brief explanation for your judgement here.

End of Part I

Thank you very much for your answers in this section!

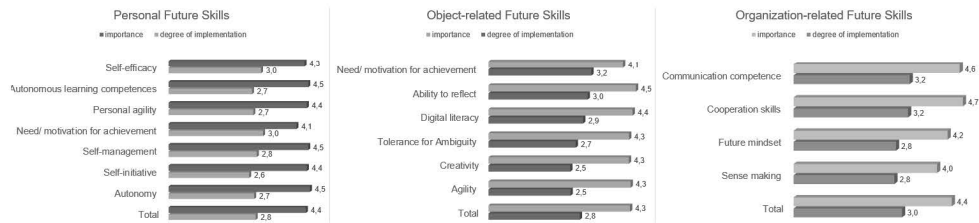The following, second part of the survey focusses on the adoption speed of future skills.

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Round 2**

Part II: Future skills and future learning

Part II

In the following, you find statements on future higher learning and future skills in higher education.

Please state how long - in your view - it will take the developments expressed in the statements to gain relevance in higher education.

Topic 1: Individual learning experience and skill development

1.1: The ability to continuously adapt through learning in changing work environments.

relevant today	relevant within next 5 years (short term)	relevant within next 10 years (mid term)	relevant within next 15 years (long term)
○	○	○	○

1.2: The ability to deal with uncertainty in current and future work environments.

relevant today	relevant within next 5 years (short term)	relevant within next 10 years (mid term)	relevant within next 15 years (long term)
○	○	○	○

Please use the box below to comment on the above statements (**optional**).

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**Delphi Survey "Future Skills – Future Learning – Future Higher Education",
Round 2**

Part II: Future skills and future learning

Topic 2: Future Skills

**From Delphi Round 1, we have learnt that there is a perceived discrepancy
between the importance of future skills and the current capacity of higher
education institutions to support the development of such future skills. For each
of the future skill areas (personal skills, object-related skills, and organization-
related skills) you find the results below.**

Importance versus degree of implementation of future skills

**In your view: Please state which steps have to be taken to raise the capacity to
support such future skills in higher education institutions.**

**Delphi Survey "Future Skills – Future Learning – Future Higher Education",
Round 2**

Part II: Future skills and future learning

The last topic deals with the organization of higher education in the future.

We have listed statements, which have been reformulated and validated from the first Delphi round below.

For each statement, we would like to ask you to tell us your view on the time it will take to gain relevance in higher education.

Topic 3: Institutional level and development of study process

3.1: Graduates' ability to act in unknown and complex future contexts as main leading orientation in higher education.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.2: Assessment **for** learning (formative and peer assessment) as opposed to assessment **of** learning (summative assessment).

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.3: Certification of small, modularized study experiences in form of micro-credentials.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.4: Higher education as institutional patchwork experience; students studying across disciplines in several institutions.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.5: Recognition of prior learning and existing competences enables students to move between institutions.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

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3.6: Future skills do not replace knowledge transfer but become more important.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

Other (please specify)

[   ]

3.7: Future higher education models are structured as learning communities (learning with each other) instead of knowledge transfer-oriented places (e.g. teacher's lecture).

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.8: Openness to alternative study pathways and permeability in higher education.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.9: Higher education learning focuses on interactive socio-constructive designs.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

3.10: Peer-evaluation and peer-validation.

already highly relevant	relevant within next 5 years (short term)	relevant within next 10 years (mid-term)	relevant within next 15 years (long term)
○	○	○	○

Please use the box below for your comments (**optional**).

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