

Research Working Group Proposal

Assessment of 21st Century Skills in Project Based Learning

Work with us to help solve the next big problem

July 2021

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Learnovate Research Working Groups

Through recent intelligence-gathering from our industry members we have identified the potential for a Research Working Group to investigate challenges related to the theme of:

Assessment of 21st Century Skills in Project-Based Learning

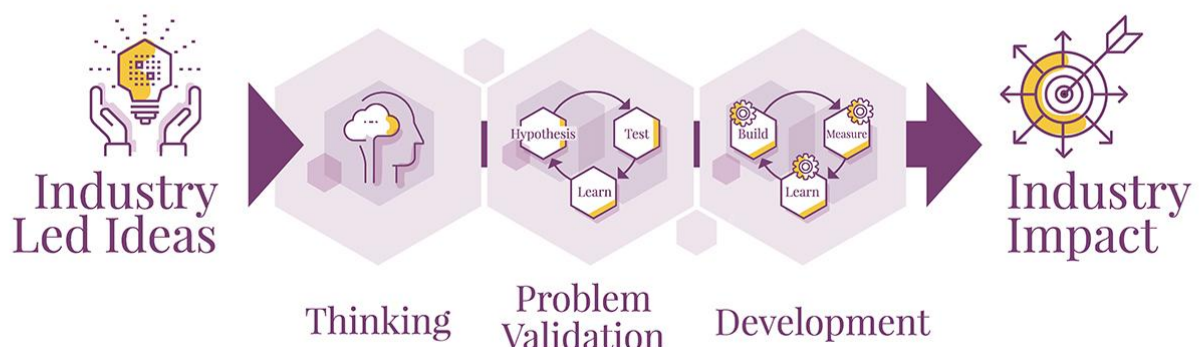
As members, we would like to explore your interest in this theme and invite you to participate in this new working group. A Research Working Group brings together Learnovate researchers with like minded Learnovate members who share an interest in addressing a common challenge. The working group then follows a structured approach to

By participating in the research working group, you will be on the front line of our research in this theme. You will help to shape and direct the research as well as informing the research through your own experience and insights. This will help us to best understand the needs of educators and learners and explore how our members can best meet those needs to the benefit of the organisation. In addition, you will be in a position to get early access to the research outputs as they come hot off the presses.

Stage 1 of the working groups research will kick off with a Research Question Workshop where we will seek to refine the focus of the working group and identify a specific research question to focus on initially.

This new working group will run alongside our current Research Working Groups that are already actively investigating the themes of:

- OBOE: Onboarding in an online environment
- Pulse: Demonstrating the business value of L&D
- iWorkSafe: Immersive learning and reflection in safety critical training



Past 21st Century Skills Research at Learnovate

The assessment of 21st Century (transversal) skills is an active area of research at Learnovate with a number of past projects investigating the use of self assessment (Skilltrack, Assessmake21) and peer assessment (Feedback, DEVELOP) in schools, higher education and corporate learning environments. More recently we have had the opportunity to take an initial look at the challenges faced in higher and further education and conceptualise potential solutions that address the specific needs of this sector.

Assessment of 21st Century Skills in Project Based Learning

Context

The practice and development of 21st Century Skills (Problem Solving, Critical Thinking, Collaboration, etc.) are playing an increasingly important role in higher and further education (HE & FE) as educators seek to prepare their students to meet the evolving needs of a changing workplace. In response to the changing needs of both students and employers, education providers are placing more and more emphasis on the development of transversal skills in addition to the hard skills/knowledge. In many cases they have developed or adapted their own 21st Century Skills frameworks, often referred to as 'graduate attributes', and sought to embed the practice and development of these skills into all aspects of teaching and learning with their institutions.

At the same time, and very much in response to this evolving emphasis on 21st Century Skills, there has been a renewed focus on project-based learning approaches. The potential for a more holistic learning experience afforded by such approaches is seen as hugely beneficial to the learning outcomes of students since they provide them with a wider range of opportunities to practice and develop 21st Century Skills in the context of the more subject matter specific knowledge and skills.

Challenge

As education providers develop their approaches to supporting their student's practice and development of 21st Century Skills they often face the same common challenge when it comes to the assessment of these skills. As greater emphasis is placed on these skills as part of course curricula, it becomes more important that 21st Century Skills are viewed in a more formalised way. Rather than just incorporating these skills into the learning outcomes, instructional designs and lesson plans and leaving it at that, it is necessary to be able to quantify student's development of these skills over time, often referred to as the 'distance travelled'. The nature of 21st Century Skills and the often implicit approach to embedding them in both formal and more non-formal education contexts raises interesting questions about how to assess something that is not formally taught. 21st Century Skills assessment is an inherently challenging task that has been the subject of much research across many application domains including schools, HE/FE and corporate learning and much can be learned through the cross pollination of ideas from these differing domains.

In the context of project based learning in HE/FE, one of the challenges in assessing these skills is the need to support and scaffold lecturers and tutors as they assess their students 21st Century Skills. Lecturers and tutors are well practiced in the assessment of subject specific knowledge and skills, of which they are themselves subject matter experts. However, they may not be as comfortable when it comes to 21st Century Skills and need an appropriate level of support. One of the recurring themes when it comes to supporting the assessment of 21st Century Skills is 'what does good look like' and how can assessors be supported in effectively and efficiently recognising these attributes. At the same time lecturers and tutors are already time poor and so any assessment methodology for 21st Century Skills needs to take this into account and make the process as efficient and streamlined as possible.

Another related challenge when it comes to the assessment of 21st Century Skills in HE/FE comes from the nature of 21st Century Skills themselves. Whereas a student might cover a specific subject area or topic as part of a single class or module with perhaps only one lecturer, 21st Century Skills are practiced and developed across all of the student's classes and modules. To develop a complete picture of a student's skills we need to take into account their performance across all of their classes, involving many different lecturers and tutors. The beauty of this is that it allows for a more holistic assessment but it does require an assessment approach that is designed to address assessment at this skill. For example addressing both intra and inter-rater reliability as it seems to create a complete picture of a student's skills.

A final consideration might also be the need to provide more continuous feedback for students, lecturers/tutors and the education provider on the practice and development of these skills. As the focus with 21st Century Skills is often on the 'distance travelled' rather than just a final summative assessment it could be invaluable to all stakeholders to have insight into these skills over the course of an academic year or indeed an entire degree program.

Get Involved

From our past research and more recent conversations with members, we know that this is an increasing and painful problem for all parties involved. If this is something that your organisation is currently working to address or something that is of particular interest to you please consider participating in this Research Working Group.

We seek to co-create innovative solutions to painful real world problems with industry experts and practitioners who have important insights into the needs of their learners, their organisations and the practical challenges they face.

Be part of the team.

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