Hybrid Futures for Innovative Learning

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Abstract

Since the onset of the COVID-19 crisis in 2020, governments throughout the world have taken a wide range of measures to respond to the unprecedented disruption caused to education and schooling systems. Countries leveraged a wide variety of distance learning modalities to ensure that learning would not stop even in emergency contexts. Such modalities highlighted a number of gaps at policy, resource and technological levels. They also revealed a systemic digital divide, including numerous inequalities. All this underlined the need to improve educational system resilience, to plan required learning supports, to implement innovative technological responses and to reimagine education internationally. While recognizing the growing importance of distance learning, the crisis also underlined the key role of schools not just as learning centres, but also centres of protection, engagement, and socio-emotional support. School closures showed that it is people (teachers, students and their families), not only buildings, that make up learning settings. Connecting learning spaces and sustaining relationships that foster togetherness and participation are essential for building equitable and resilient education systems. In the search for flexible and sustainable solutions, hybrid learning has quickly become a popular option to address the impact of global emergencies. Hybrid learning, a model combining face-to-face instruction with computer-mediated pedagogies, is at the core of responses to new conditions created by the pandemic. Hybrid learning is a promising pedagogy that leverages technology to ensure equitable, quality education and lifelong learning opportunities for all. This constitutes the United Nations' fourth Sustainable Development Goal (SDG 4). Implementation of hybrid learning strategies requires meaningful and affordable connectivity for all learners, but also a policy framework which guarantees that all learners, families, and communities are fully capable of benefiting from the opportunities offered by innovation. This paper illustrates how issues around hybrid learning are being addressed in concrete ways by the EU Erasmus+ project, HAVE. The aim of HAVE is to offer citizens with fewer opportunities alternative pedagogical training methods. In the period of online teaching, some students have had great benefit from participation in safe familiar surroundings instead of being present in physical classrooms. The project aims to strengthen the ability of organizations to offer high-quality teaching in hybrid classrooms. It creates a clear, sustainable, flexible and robust Learning Path to demonstrate continuous improvement and implement change. HAVE provides information to a range of stakeholders. Develops a Local Learning path in relation to assessing for digital capacity, skills and competences and ensures greater knowledge and training of Teachers regarding setting up and managing Hybrid Classrooms. The consortium is pioneering hybrid strategies in its partner countries of Denmark, Germany, Ireland, Finland and Italy.

Keywords: *Hybrid learning; e-learning; ICT in education*

Introduction

Connecting learning spaces and sustaining relationships that foster togetherness and participation are essential for building equitable and resilient education systems. In the search for flexible and sustainable solutions, hybrid learning has quickly become a popular option to address the impact of global emergencies. Hybrid learning, a model combining face-to-face instruction with computer-mediated pedagogies, is at the core of responses to new conditions created by the pandemic. But it also has deeper roots in educational themes and practices connected to access, facilitated learning and social

justice. The traumatic impact of the Covid 19 pandemic and the emergence of new and powerful technologies, create a new importance for hybrid learning which we can explore.

There is an extensive body of research and published literature on hybrid learning. However there is no simple or clear definition on what hybrid teaching is or, more importantly, its differences from other lesson delivery systems (e.g. blended learning). There is also considerable overlap in the literature on how such teaching methodologies are conducted in the teaching and learning environment (with particular reference to the COVID19 pandemic). Some studies have used the concept of hybrid teaching or learning interchangeably with blended learning (O'Byrne and Pytash, 2015; Klimova and Kacetl, 2015; Solihati and Mulyono, 2017; Smith and Hill, 2019), emphasizing the combination of residential classroom instruction with computer-mediated instruction. For instance, Linder (2017) broadly defined hybrid teaching as a teaching method that integrates technology to provide students with a different learning environment while catering to their learning needs and preferences. Such a definition is similar to Garrison and Kanuka's (2004) definition of blended learning as "a thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (p. 96). This definition further emphasizes that in blended learning, "learning designs are informed by evidence-based practice and the organic needs of the specific context" (p. 24). This suggests that both hybrid teaching and blended learning primarily consider the needs of the teaching context and that instructional designs are geared toward students' learning experiences.

Hybrid learning is when a synchronous session is attended by students, some of whom are in the classroom and others connecting online (Secker et al., 2021).   This is perhaps the most straightforward definition. However, a number of more complicated issues can be identified in such a definition:

1. *The session needs to be designed in advance*
2. *Instructors/teachers/ moderators all need support and training*
3. *Exactly how technology is set up, and the physical room layout, makes a big difference to learners' experiences*
4. *Key issues are needed to be built into the pedagogy: teacher presence, engaging learning design, technology setup. Many studies seem to indicate that classroom pedagogies dominate and 'disadvantage' online or remote learners.*

Hybrid learning has acquired numerous interpretations. In general it most commonly refers to different spaces of learning - *a space of merging interactions* - where connected mobile technology enters the space and adds to its dynamic. Thus it can be conceptualized that *hybrid is fluid*, reflecting a compound-like space where the boundaries of formal dichotomies are blurred, and learner motivation takes centre stage.   (Eyak and Gil 2022). Hybrid learning is an approach to teaching that not only integrates technology in the teaching process but also combines students who are inside a physical classroom and students who are online. In other words, hybrid teaching is synchronous teaching of students in the classroom and online using an online platform. As a teaching methodology, it addresses students' learning preferences, as was seen particularly during the Covid19 pandemic, as students who were inoculated against the virus chose whether to return to the classroom or to continue learning online. Unlike in fully online classrooms, hybrid teaching allows online students to join and engage in various learning discourses with their classmates in the physical classroom .

Impact and lessons from the Covid19 pandemic

Despite these issues and challenges, the Covid19 pandemic has significantly engaged the interest of some education scholars, practitioners, and researchers in innovating traditional classroom teaching practice to suit the current educational context. Studies have shown the significance of online teaching and learning resources, the provision of electronic devices, online platforms, and various online applications to make online and remote teaching both possible and successful. Asynchronous and synchronous teaching have also become the most crucial teaching modalities, offering choices for teachers and students to continue the teaching and learning processes. The Covid19 pandemic clearly changed the educational landscape in all schools and universities globally. This has happened as these schools migrated to online and remote teaching from residential classroom teaching. Studies have

reported that while migrating to online teaching, teachers faced issues that challenged their classroom pedagogical practices, questioned their teaching abilities, and queried the learning outcomes of their students. Considering how classroom teachers implemented hybrid classroom instruction in different teaching and learning contexts, where there were no online and onsite students learning simultaneously, present teaching practice adds to the discussion and practice of hybrid teaching, especially in the context of the Covid19 pandemic. The lessons acquired reflect that conducting a hybrid class offers opportunities and choices for students to study online or onsite. In other words, hybrid teaching addresses and caters to students' learning preferences during such unprecedented times. Interestingly, evidence points to the fact that such pandemic situations may occur in future.

Although many students have not been entirely confident about returning to the campus, there have also been students who were excited and happy to go back to residential classroom teaching, considering the fact they had been confined in their homes, with only online learning for over a year. For teachers, there was the positive aspect of being able to meet students in person. Based on the teaching practice presented, it can be noted that hybrid teaching requires teachers to have strong pedagogical skills (previous teaching experience) and knowledge and affordances of online platforms. Teachers' experience underlines that a key to successful hybrid classroom instruction, where online and onsite students were simultaneously learning, is availability of technological equipment and platforms.

Emerging Issues

Hybrid learning has been known and identified for many years. Advances in technology and the impact of the pandemic accelerated familiarity with hybrid learning and have embedded it as a more understandable tool in learning design and delivery. Hybrid is the most complicated to design and deliver for because of the complexity of the much-added system – including online and offline spaces, formal and informal contexts, analogue and digital communications, and often very different expectations between teachers and students.

Key factors are engagement, learning and teaching, - both for students and teachers. To summarise what research there has been – most studies do not find significant differences between learning, but they do find engagement and interaction differences unless there is good prior design and teachers are trained in delivery. While good technologies are important the move is towards the ideas and impact of *hybridity for the participants and for educational achievements*. Essentially, capabilities are important but so is capacity.

Prof. Gilly Salmon has identified four modes of learning withing which hybrid learning best practice might be embedded.

Hybrid principles
1. Be aware of the differences in experience between 'in situ' and 'digital engagement' and design for these
2. Be aware that the biggest challenges are equity and equivalence in experience between 'in situ' and 'digital engagement'
3. Learning must be designed through storyboarding before students arrive
4. A trained 'moderator' ensures that remote students have access and are fully engaged with the on-location students
5. Students have choices by ensuring an equivalent experience for each mode
6. Benefits and expectations of taking part with others are published

Campus and in-situ learning
1. Design for where the students 'are' - this includes mobile learning
2. Create a sense of belonging to the whole student and staff community
3. Offer digital community events and networking
4. Help students to understand that many skills and jobs will include digital elements in future

Blended

1. Design experience through storyboarding before the students arrive (scaffolding)
2. Prioritise staff development to be successful
3. Provide a 'road map' through the learning pathways for all students
4. Use well-rehearsed pedagogical processes, including scaffolding and small group interaction
5. Use authentic assessments, adapted to digital as necessary
6. Ensure that all synchronous events could be digitalised, if necessary
7. Make the most of the LMS to build confidence, before adding other technologies
8.

Fully online
1. Design once and deliver many times for efficiency and effectiveness
2. Design and deliver for accessibility and volume
3. Design learning through storyboarding before the students arrive
4. Ensure appropriate practitioner development for those delivering the learning

The HAVE project

As a result of the Covid-19 pandemic, the adult education sector in Europe has primarily worked and taught online for a long period of time. During this period, we have seen students who are normally inactive in the physical classroom environment interacting, participating and developing in online classroom environments. It is essential that we sustain the knowledge from online teaching and utilize it in future education provision in order to provide higher quality learning opportunities which are accessible for all adult learners. The HAVE project was approved by the EU in 2022 as the partner organisations had seen that online teaching is particularly effective for those adult learners who have additional social or physical and sensory needs or face economic or geographical barriers. The findings from studies also showed that to succeed in online teaching, teachers had to change their teaching methods, didactics and materials in order to achieve learning goals and motivate students. This saw a shift in the role of the teacher towards a more facilitative and entrepreneurial role in the learning situation.

The HAVE project aims to capture and maintain the positive effects from the online teaching in an environment where students participate physically in the classroom together with students in a synchronous digital environment. The hybrid school allows students in rural locations who are a long way from school, or have had bad experiences with the existing school system, to participate in teaching in a safe environment from home. At the same time, students who do want to go to school can participate in the teaching through physical attendance. This difference in situation and perhaps also prior experience opens up for a community-oriented scaffolding of teaching across situation and experience, where Vygotsky's principle of "Zone for immediate development" can be used to create dialogue and reflection on e.g. climate change or other key issues. Finally, the digital element in hybrid classes also opens up the possibility of supplementing the students' local action with a global perspective for involvement and action for all participants regardless of experience and situation, when they can investigate issues online via dialogue with other organizations and individuals all over the world.

To be able to provide high quality learning opportunities for adults, the project aims to develop a new pedagogical approach in the hybrid environment. At the same time, HAVE aims to make sure it is a strategic focus point for managers of the organisations if hybrid classes should succeed and be an option in future education of adults. The objectives of the project centre around an Implementation Strategy (to include a Roadmap and Practical Implementation), a Continuous Improvement Plan, a Tool for Managers, Teachers and IT-supporters to assist in Design of Hybrid Classes, and CPD activities (including guidelines for Teachers, Educators and Students digital competences - with student guidelines for those attending the hybrid classes).

The project will have three important and innovative results:

1. Guidelines and organizational strategy on implementing hybrid classrooms in adult education Partners will have created and updated a strategy for implementing hybrid classes and a plan for further development actions. This will make the project sustainable.

2. A Methodological framework for designing and implementation of hybrid classrooms in 4 different types of adult education organizations. The framework will be usable for other organizations in the education sector by providing the main aspects and considerations when designing a hybrid classroom. The partners will share their experiences with the problems and solutions they will have faced though the project. The framework will provide external stakeholders with strategies to strengthen collaboration between technical and pedagogical staff members to find the right technical solution on different pedagogical approaches and methods.

3. A handbook providing best practice examples on how to develop digital capacity, innovative pedagogical methods through learning designs and facilitation of learner's digital and professional competences in hybrid classrooms. Trainings internationally and local will be planned to be flexible and suitable for different kind of learning situations. Main idea is practical workshops focusing on the student as a producer of own learning, in which we utilize selection of methods to enable. These trainings will be developed in agile way, so that the experiences and feedback of teacher/trainers and students will always have impact on modification of the training.

The methodological framework for implementation will be accessible to hybrid classrooms based on design thinking and agile design methods, which means that all phases are included in the development of the premises. Ultimately, the project is designed to deploy innovative technologies and delivery methods to enhance and increase social inclusion and real learning opportunities for all students (and educators) at a time of sustained change.

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