

HyFlex Learning as Support for Lifelong Learning

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Abstract: Since the COVID-19 pandemic, the courses in a study programme in Knowledge Management have been offered as a hybrid version, serving students at both a campus and online. The official policy from the universities is that the students are wanted back at the campuses. However, students in a work-life lifelong learning situation do not always have the opportunity of travelling to a campus. Hence, the possibility of taking part digitally in a class with a mix of online and physically present students has been the right solution for many working students. This paper presents results from a survey among students enrolled in four different courses in the study programme of Knowledge Management at the Inland Norway University of Applied Sciences, Norway, where the physical classroom is based in Kongsvinger, and the students are either present at the campus or online simultaneously. The preliminary results show that the students in this lifelong learning situation are depending on this hybridity in order to maintain their learning opportunities, as this enables them to stay in an often-demanding work situation, as well as being able to stay as learners at a university. This implies that the hybridity, first boosted by the COVID-19 pandemic, now, independently of the pandemic, is a demand within the segment of lifelong learners, as this will support access to higher education independent of place of residence, family situation or work situation. The students in this segment claim to attend physically if and when they have the opportunity to travel due to the above-mentioned situations. Hence, online only is not always the best option.

Keywords: Lifelong Learning, Blended Learning, Adult Learning, Hyflex Learning, Flipped Classroom

1. Introduction

Online learning has been around for quite a while. From remote schooling (hand-) written assignments to be sent via mail to the teachers, to today's email or learning management system (LMS), there are a plethora of systems organizing online learning. During the COVID-19 pandemic, both students and lecturers had to rely on online systems for lecturing and all correspondence and communication. In many cases, this led to students feeling isolated and developing psychological problems (Knight *et al.*, 2021; Salimi *et al.*, 2023). Although not all investigations showed a declining mental health issue among the students (Hamza *et al.*, 2021), there has been a definite turn to students asking for the online option if they are prevented from leaving, or otherwise wanting to stay at home or at work. However, post-pandemic, many universities have returned to face-to-face lecturing (Zhao & Xue, 2023), with some now having a blended learning approach (Mozelius, 2020; Remenyi, 2020; Singh, Steele, & Singh, 2021; Cobo-Rendón *et al.*, 2022).

Nevertheless, according to Cobo-Rendón *et al.* (2022), due to the quick turn to online lecturing for the lecturers, many have not been able to adapt to the various options and possibilities that lie in the online medium. Moreover, the equipment chosen may not have been optimal to fully utilize the online potential. Hence, the "return" to an ordinary classroom situation may be preferred.

1.1 Adult Learning

Adults may be in different situations when they need to upgrade their knowledge. They may be living far away from the higher education institution; they may have family situations that make travelling difficult and they may even have jobs where it is difficult to prioritize taking time away from in order to go to school.

According to Knowles (2015), adults learn differently from children. According to Brookfield (1995), adults are concerned about self-directed learning, critical reflection, experiential learning and learning to learn. Self-directed learning is about adults taking control of their own learning. Transformational learning (Mezirow, 2010) involves critical reflection, and is about reframing previous schemes as they make sense of the newly acquired knowledge. Experiential learning (Kolb, 2014) is about learning from experiences. Kolb, being heavily influenced by Dewey (1938, 1966), described how one can utilize an experience for reflection, abstract conceptualization, which can be "fed" into a new active experiencing, see Figure 1:

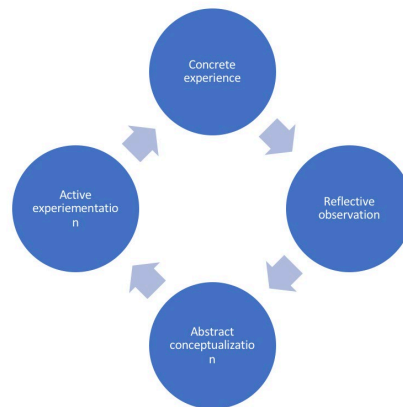


Figure 1: Kolb's experiential learning cycle (Kolb, 2014)

For adults to learn how to learn, it means that “that adults possess a self-conscious awareness of how it is they come to know what they know; an awareness of the reasoning, assumptions, evidence and justifications that underlie our beliefs that something is true” (Brookfield, 1995, p. 5).

Adults need to know why they should learn something, and are more prone to follow an intrinsic motivation, rather than an external one (Merriam & Baumgartner, 2020). This may imply that the adult students want to be involved in the development of the learning, as they are then able to control the learning outcome. However, according to Courtenay, Arnold and Kim (1994), participation in the development has no effect on the adult's gain in learning.

Learning is also about changes in the brain. When the brain and its environment interact, it may result in changes (Merriam & Baumgartner, 2020). Bronfenbrenner (1996) also claimed that the general environment would also influence a person's development.

As pointed out earlier, *reflection* is also important for the learning process (Schön, 1984, 1987; Moon, 2013). Reflection can be facilitated before an action (Cowan, 2008), during an action (Schön, 1984; Moon, 2013) and after an action (Allen & Smith, 1994).

1.2 Different Learning Approaches

Several approaches to combining online and on-campus learning have been described. Blended learning is defined by Cronje (2020) as “the appropriate mix of theories, methods and technologies to optimise learning in a given context” (Cronje, 2020, p. 120). This means that we need to consider both the constructivist and behaviourist approaches to learning. There are some disagreements regarding the terms “blended learning” and “hybrid learning”. According to Fisher, Frey, Almarode and Henderson-Rosser (2021) Blended learning is about both distance learning and face-to face learning, but not simultaneously, and hybrid learning is when students “learn part time with at teacher in a physical school classroom and part-time online” (p. 9). According to others, blended learning is often about mixing face-to-face lecturing with online lecturing (Boelens, De Wever, & Voet, 2017; Boelens, Voet, & De Wever, 2018). It may also include other approaches such as the “flipped classroom” (Bishop & Verleger, 2013). Hybrid learning is about dividing time between an online and face-to-face presence during a course (Ranganathan, Negash, & Wilcox, 2007), which is similar to what Fisher et al. (2021) claimed. This has had a positive outcome on the learning outcome (Saichaie, 2020).

HyFlex and Synchronodal learning is about synchronous and face-to-face learning at the same time (Howell, 2022). In other words, HyFlex learning allows the students to choose between face-to-face or online instruction (Kohnke & Moorhouse, 2021). Creating a community out of the students who are face-to-face and online may be a challenge for the lecturers, but should be encouraged to encourage the students to develop teams and groupwork across the “borders” of the technology (Kohnke & Moorhouse, 2021).

Howell (2022) developed an overview of the different terms, which is reprinted below with kind permission from the author. It explains the different approaches, how they relate to each other and how they place themselves on a continuum providing high flexibility to low flexibility. Here, we see that the HyFlex/Synchronodal approach is of high flexibility and such, thereby allowing students to choose between an online presence or a face-to-face appearance.

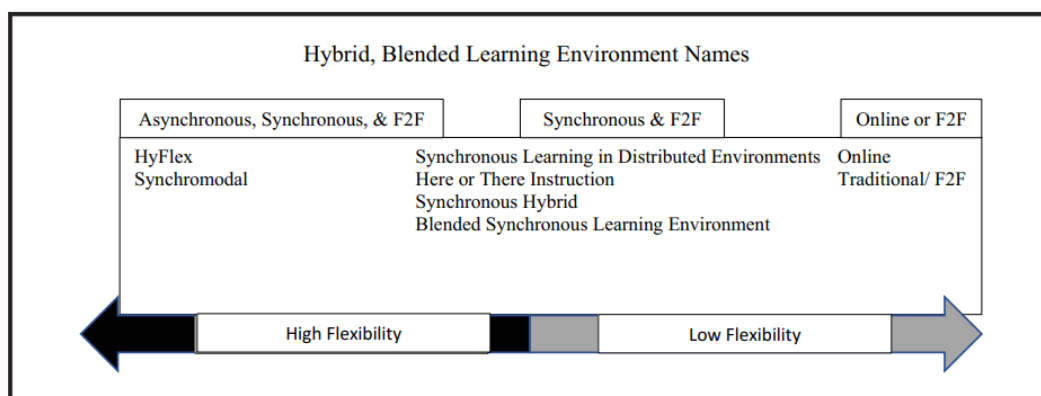


Figure 2: Distinction of terms (Howell, 2022) reprinted with permission.

1.3 The Courses in Learning Organizations and Knowledge Management

At the Inland Norway University of Applied Sciences, Norway, many studies have returned to a campus-based lecturing regime. One study that has chosen a blended approach is the study programme of Knowledge Management, which consists of four courses: two in the autumn semester and two in the spring semester. The students enrolled in this study programme are generally adult students in a work-life. The students are from all over Norway, with many having to travel for several hours to attend live campus lectures. The lecturers are given in seminars over two days, three times per semester. During the seminars, they attend two different courses in parallel, one day with each course throughout the semester.

We wanted to investigate how the students perceive an approach that allowed both analogue and digital students to attend the same lectures. The courses are conducted in a semi-flipped way, with streaming video of full lectures, a short version of the lectures at the beginning of the day of the seminar and then work on developing assignments before solving them.

1.4 Lifelong Learning

Organizations are exposed to changes due to the development of technology, changes in markets and access to knowledge and/or material, as well as changes in politics or other influences (Jacobsen & Thorsvik, 2019). Among other issues, these changes require updates, and that the workforce stays up to date with the developments. There may be several different changes during a person's work-life, with the ability to learn and develop accordingly very sought after, and one of the desired skills to develop, according to the OECD (Toner, 2011).

Governments have also recognized the need for workforces to develop to stay up to date, not only in the private-, but also in the public sector (Jarvis, 2007). Lifelong learning strategies are promoted, both within the organization and as initiatives in cooperation with higher education (Clarke, 2001). In addition to reflection and being reflective practitioners, situated learning (Lave & Wenger, 1991) is mentioned among the methods used for lifelong learning purposes.

1.5 Research Question

What we wanted to understand the connection between Hyflex or Sychromodal learning and adults lifelong learning. Hence, the research question:

How does HyFlex/Sychromodal learning support lifelong learning?

In the following, we present our data collection methods and findings before we conclude and look to future research on the topic.

2. Method of Inquiry

We have chosen to treat this as a case study (Remenyi, 2012; Yin, 2014). Although we have not aimed for generalizing findings, using the case study approach has allowed us to take an in-depth look at a specific subject, here regarding if or how HyFlex/Sychromodal learning can contribute to lifelong learning.

We have chosen to use a mixed methods approach (Creswell, 2007; Creswell & Creswell, 2017), and base our findings on a survey and interviews. We have done a qualitative interpretation of the data (Creswell, 2007; Kvale & Brinkmann, 2015; Johannessen, Christoffersen, & Tufte, 2020). The data has been categorized into main categories and sub-categories.

The survey had 37 answers, and we have interviewed (group interviews and individual interviews) 11 students (out of a possibility of 82).

3. Findings

Our findings show us that there are several students who choose the HyFlex/Synchromodal. The main reasons for not attending face-to-face lectures are primarily: 1) the travel costs, 2) the time away from family and/or from work, 3) young children or otherwise difficult family situations, and 4) not granted time off from an employer. Due to work or family situation, some of these students then choose an online version of the lecturing if time permits. Several students claim that this is the only way to attend lectures at all, and that due to the option of online lectures they are able to stay in the study programme.

There are also students who oppose travelling for reasons of sustainability. They claim to see the online option as environmentally friendly and less costly, both regarding nature and time.

Some of the students prefer the face-to-face lectures and claim that the socialization and possibilities for learning and reflecting together with other fellow students is preferred. Still, these students also claim that there is some security in knowing that there is an option to take part online if the situation should not allow them to attend in person.

Yet, some students are doing both, attending maybe one or two face-to-face lectures and attending the rest of the seminars online. Again, this group claims that without this option, it would be difficult to follow the study programme.

All of the respondents seem to prefer the blend of learning opportunities that are otherwise provided in the course, such as the “flipped classroom” approach, with the streaming video and developing and solving assignments in plenary, as well as working on utilizing the students’ own backgrounds, in order to develop their critical reflection, support their transformational learning and even their intrinsic motivation for self-directed learning.

This seems to invite for the development of a model, including both blended learning opportunities in a HyFlex/Synchromodal setting. We may propose a model that can be viewed as a three-dimensional model. It shows the different learning approaches in one dimension, and the HyFlexity/Synchromodality in the other dimension (Figure 3):

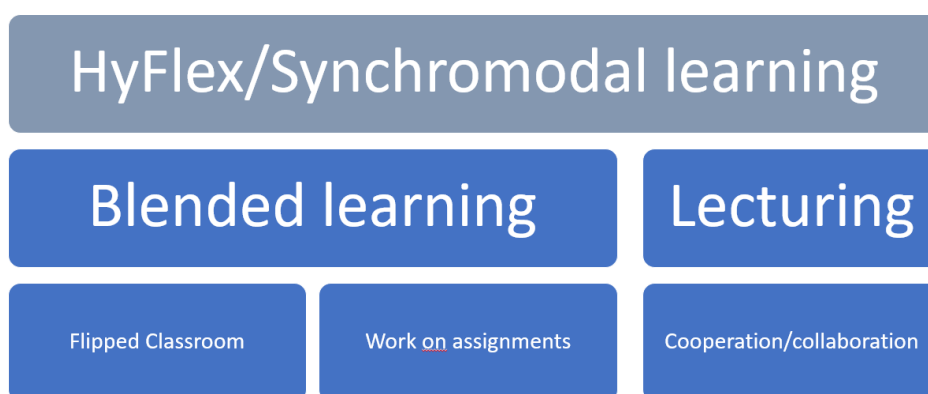


Figure 3: Overview of HyFlex/Synchromodal as an overarching learning method, with the different learning adaptations within this context

For example, within the cooperation/collaboration are Communities of Practice, teamwork and other collaborative learning approaches.

The difficulties reported with the HyFlex/Synchromodal learning are that the equipment is not fully supporting a full integration, to make it both a full face-to-face experience and a full online experience. The lecturers also

seem not to be trained to handle a dual face-to-face/online situation as lecturers. Attention will therefore have to be on either the students being physically present or online.

4. Conclusion

The HyFlex/Synchromodal learning approach seems to support adult students in diverse situations to take part in lifelong learning that they otherwise would not have been able to attend. It is thus possible to utilize most of the blended learning processes such as the “flipped classroom”, working on assignments, developing and utilizing reflection processes and experiential learning processes within the frames of the HyFlex/Synchromodal learning. Even for students who have planned to attend face-to-face in seminars, it is reassuring to have the opportunity to take part online if they are prohibited from travelling to the campus. For the ones in a family/work/financial situation that does not allow for travel expenses, nor time off from work or family, the online option is also appreciated. Hence, the HyFlex/Synchromodal learning supports lifelong learning, as it allows more adult students to take part in higher education due to the online possibilities that lie in HyFlex/Synchromodal learning.

The equipment and training for a smoother transition between the different modes are needed, meaning that the technology must be developed to support a more streamlined online/in person appearance, and the lecturers need to be trained to better handle and treat the audiences in the various media.

4.1 Further research

Further research is needed, and different technological appliances may be utilized. A broader investigation of the different types of technologies available should be carried out and based on this the lecturers should be trained to handle this technology.

References

- Allen, G. and Smith, R. (1994) ‘After action review in military training simulations’, in *Proceedings of Winter Simulation Conference*. IEEE, pp. 845–849.
- Bishop, J. L. and Verleger, M. A. (2013) ‘The flipped classroom: A survey of the research’, in *ASEE national conference proceedings, Atlanta, GA*, pp. 1–18.
- Boelens, R., Voet, M. and De Wever, B. (2018) ‘The design of blended learning in response to student diversity in higher education: Instructors’ views and use of differentiated instruction in blended learning’, *Computers and education*, 120, pp. 197–212. doi: 10.1016/j.compedu.2018.02.009.
- Boelens, R., De Wever, B. and Voet, M. (2017) ‘Four key challenges to the design of blended learning: A systematic literature review’, *Educational research review*, 22, pp. 1–18. doi: 10.1016/j.edurev.2017.06.001.
- Bronfenbrenner, U. (1996) ‘The ecology of human development : experiments by nature and design’. Cambridge, Massachusetts: Harvard University Press.
- Brookfield, S. (1995) ‘Adult learning: An overview’, *International encyclopedia of education*, 10, pp. 375–380.
- Clarke, J. (2001) *Supporting Lifelong Learning : Volume 1: Perspectives on Learning*. Edited by A. Hanson, R. Harrison, and F. Reeve. Hoboken: Taylor and Francis.
- Cobo-Rendón, R. et al. (2022) ‘Return to university classrooms with Blended Learning: a possible post-pandemic COVID-19 scenario’, in *Frontiers in Education*. Frontiers Media SA.
- Courtenay, B. C., Arnold, G. W. and Kim, K. (1994) ‘An examination of the empirical basis for involving adult learners in planning their learning experiences’, *International journal of lifelong education*, 13(4), pp. 291–300. doi: 10.1080/0260137940130404.
- Cowan, J. (2008) ‘Facilitating development through varieties of reflection’, *Higher Education Academy*, pp. 1–17.
- Creswell, J. W. (2007) *Qualitative inquiry & research design : choosing among five approaches*. 2nd ed. Thousand Oaks, Calif: Sage.
- Creswell, J. W. and Creswell, J. D. (2017) *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Cronje, J. (2020) ‘Towards a new definition of blended learning’, *Electronic journal of e-Learning*, 18(2), pp. pp114-121.
- Dewey, J. (1938) *Experience & education*. New York: Kappa Delta Pi/Touchstone.
- Dewey, J. (1966) ‘Democracy and education (1916)’, *Jo Ann Boydston (ed.) The Middle Works of John Dewey*, 9, pp. 1899–1924.
- Fisher, D. et al. (2021) ‘The quick guide to simultaneous, hybrid, & blended learning’, *Quick guide to simultaneous, hybrid, and blended learning*. 1st ed. Thousand Oaks, California: Corwin.
- Hamza, C. A. et al. (2021) ‘When social isolation is nothing new: A longitudinal study on psychological distress during COVID-19 among university students with and without preexisting mental health concerns.’, *Canadian Psychology/Psychologie canadienne*, 62(1), p. 20.

- Howell, E. (2022) 'HyFlex model of higher education: understanding the promise of flexibility', *On the Horizon: The International Journal of Learning Futures*, 30(4), pp. 173–181.
- Jacobsen, D. I. and Thorsvik, J. (2019) *How organizations are working (in Norwegian: Hvordan organisasjoner fungerer)*. 5. utgave. Edited by J. Thorsvik. Bergen: Fagbokforlaget.
- Jarvis, P. (2007) *Globalization, Lifelong Learning and the Learning Society: Sociological Perspectives*. Florence: Florence: Routledge (Lifelong Learning and the Learning Society). doi: 10.4324/9780203964408.
- Johannessen, A., Christoffersen, L. and Tufte, P. A. (2020) *Research methods for the area of business and administration (Translated from Norwegian: Forskningsmetode for økonomisk-administrative fag)*. 4. utgave. Edited by L. Christoffersen and P. A. Tufte. Oslo: Abstrakt forlag.
- Knight, H. et al. (2021) 'Impacts of the COVID-19 pandemic and Self-Isolation on students and staff in higher education: A qualitative study', *International journal of environmental research and public health*, 18(20), p. 10675.
- Knowles, M. S., Holton III, E. F. and Swanson, R. A. (2015) *The Adult Learner: The definitive classic in adult education and human resource development*. London: London: Routledge. doi: 10.4324/9781315816951.
- Kohnke, L. and Moorhouse, B. L. (2021) 'Adopting HyFlex in higher education in response to COVID-19: students' perspectives', *Open Learning: The Journal of Open, Distance and e-Learning*, 36(3), pp. 231–244.
- Kolb, D. A. (2014) *Experiential learning: Experience as the source of learning and development*. FT press.
- Kvale, S. and Brinkmann, S. (2015) *InterViews : learning the craft of qualitative research interviewing*. 3rd ed. Edited by S. Kvale. Thousand Oaks, Calif: Sage.
- Lave, J. and Wenger, E. (1991) *Situated learning: Legitimate peripheral participation*. Cambridge university press.
- Merriam, S. B. and Baumgartner, L. M. (2020) 'Learning in adulthood : a comprehensive guide'. Edited by L. Baumgartner and J.-B. Inc. Hoboken, New Jersey: Jossey-Bass (Jossey-Bass higher and adult education series).
- Mezirow, J. (2010) 'Transformative learning in practice : insights from community, workplace, and higher education'. Edited by E. W. (Edward W. Taylor. San Francisco: Jossey-Bass.
- Moon, J. A. (2013) 'Reflection in learning and professional development: Theory and practice'.
- Mozelius, P. (2020) 'Post Corona Adated Blended learning in Higher Education', in Remenyi, D., Grant, K. A., and Singh, S. (eds) *University of the Future-Responding to COVID-19*. Reading, UK: ACPIL, pp. 93–97.
- Ranganathan, S., Negash, S. and Wilcox, M. V (2007) 'Hybrid learning: Balancing face-to-face and online class sessions'.
- Remenyi, D. (2012) 'Case study research: The quick guide series', in. Academic Conferences Limited.
- Remenyi, D. (2020) 'Post-Covid-19 Universities: Reformed or Reinvented', in Remenyi, D., Grant, K. A., and Singh, S. (eds) *University of the Future-Responding to COVID-19*. Reading, UK: ACPIL, pp. 1–7.
- Saichaie, K. (2020) 'Blended, flipped, and hybrid learning: Definitions, developments, and directions', *New Directions for Teaching and Learning*, 2020(164), pp. 95–104.
- Salimi, N. et al. (2023) 'College students mental health challenges: Concerns and considerations in the COVID-19 pandemic', *Journal of College Student Psychotherapy*, 37(1), pp. 39–51.
- Schön, D. A. (1984) *The reflective practitioner: How professionals think in action*. Basic books.
- Schön, D. A. (1987) *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass.
- Singh, J., Steele, K. and Singh, L. (2021) 'Combining the best of online and face-to-face learning: Hybrid and blended learning approach for COVID-19, post vaccine, & post-pandemic world', *Journal of Educational Technology Systems*, 50(2), pp. 140–171.
- Toner, P. (2011) 'Workforce skills and innovation: An overview of major themes in the literature'.
- Yin, R. K. (2014) *Case study research: design and methods*. 5. edition. Los Angeles: Los Angeles: SAGE.
- Zhao, X. and Xue, W. (2023) 'From online to offline education in the post-pandemic era: Challenges encountered by international students at British universities', *Frontiers in Psychology*, 13, p. 1093475.