

Learning. Your Agility For Life.

Hybrid Learning Pilots For Adult Learners @ Ngee Ann Polytechnic

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HYBRID LEARNING PILOTS FOR ADULT LEARNERS @ NGEE ANN POLYTECHNIC

Aim

1. This paper seeks to share hybrid/hyflex^[1] learning pilots conducted for adult learners during the Academic Year 2022/2023 in Ngee Ann Polytechnic (NP). Background of the pilots, conduct, observations and recommendations will ensue.

Background

Context

2. Due to academic quality considerations, hybrid learning, that is a concurrent session of some learners attending a particular lesson in person while some others beam in remotely, is currently not a learning modality supported by the SkillsFuture Singapore (SSG) in their funding schemes.

Backdrop

3. Since and because of the pandemic, adult learners and educators in Singapore are **embracing the shift to online learning**. The Institute for Adult Learning Singapore (IAL) discovered a newfound preference for online learning among adult learners, from 5.6% before the circuit breaker to 26.4% post-lockdown (Ling, 2021). Convenience (cutting down travelling time) and flexibility (ability to access / revisit learning materials at the learners' own pace) were key reasons cited. Though not cited in this study, another commonly quoted advantage of online learning includes the ability to access learning from anywhere, even when learners are overseas.

4. Technological advancements coupled with an increased adoption of online learning during the pandemic have also driven home the **increasing ask for hybrid learning** among adult learners. Termed "Classroom of the Future", the Institute of Technical Education (ITE) has progressed to develop smart classrooms to enable the conduct of hybrid learning, beginning with learners in their pre-employment training (PET) programmes (Rahim, 2022).

5. Similar trends have been observed worldwide. In Canada, France, Italy, the United Kingdom and the United States, online learning, e-learning and Massive Online Open Courses (MOOCs) have increased up to fourfold (OECD, 2020). The pandemic has taught

^[1] The term HyFlex, or hybrid and flexible learning modality, originated from the San Francisco State University and refers to classes when the same learning activities are experienced by students on-campus (in-person) and remote (e.g. at home) within a single group session and at the same time (synchronous). HyFlex is the most common terminology used in the internet and research space. Other terms used include concurrent, dual modality, dual delivery, etc.

educators that adult learners want to tailor their learning experience based on their personal preferences and circumstances, whether that be planning how they want to attend class or deciding the hour before class, the modality(ies) that work(s) best for them.

6. Adult learners' lives often change from week to week due to challenges arising from home, work or illness(es). Learners who cannot attend in-person need a viable option to facilitate their 'undisrupted' learning and sustain their learning motivation. By accommodating both inperson and remote learning formats, hybrid learning offers learners greater flexibility to choose the learning modality that works best for them at any given time. Learners can decide if a topic requires them to engage in-person with the instructor, join remotely one day, or attend in-person every class. Hybrid learning allows learners to learn in a way that best fits their current life circumstances.

7. Enhancing course offerings by implementing a hybrid learning modality will augment learners' experience and help **educators remain relevant** (Kaibarta, 2022; Norgard, 2021). Giving learners the option to move between modalities based on their needs **expands participation and reduces barriers to enrolment** (Penrod, 2022). Hybrid learning will also **augment student retention and graduation rates** as it improves class attendance and learners' ability to stay on top of their coursework.

Pilots

<u>Pilot 1</u>

8. The hybrid learning pilot 1 was conducted for a module in the Apr 2022 semester within a Part-Time Diploma programme. The class comprised 17 adult learners and spanned across 15 evening lessons of 3.5 hours each. Of the 15 evening lessons, 4 were conducted fully synchronously online and 11 in-person. Of the 11 in-person lessons, 4 were conducted in a hybrid manner. Hybrid lessons were recorded for all learners to access subsequently. Details of hybrid lessons are tabulated in Table 1 and of learners learning remotely during the hybrid lessons in Table 2.

| LESSON NO. | EQUIPMENT | ΤΟΡΙϹ | REMOTE LEARNER(S) | REMARKS |
|------------|------------------------------|-------------------------------|----------------------|---|
| 6 | Teams | Group Project Consultation | А | Group Project comprised 30% of module grade |
| 11 | Portable web conference tool | Topic 5 Part I | A and B | Topics 5 and 6 were the |
| 12 | - Smart Classroom - | Topic 5 Part III | A, C and D | key topics for Test 2, which comprised 20% of |
| 14 | | Topic 6 Part I | А | module grade |

TABLE 1: DETAILS OF HYBRID LEARNING PILOT LESSON CONDUCT

TABLE 2: DETAILS OF REMOTE LEARNERS & FEEDBACK

| LEARNER | BACKGROUND | FEEDBACK ON LEARNING REMOTELY | FINAL GRADE |
|---------|--|---|----------------|
| A | Work requires frequent travel, not able to attend in person during the 4 lessons. | Lesson 12 truly helps me! I am really clear about the concepts taught. Honestly for the first calculation session where hybrid learning was not available, I was lost. I tried to practise online questions prior to Test 1 but I had nothing to refer to as a guide. I even sourced out classmates help, but since it is a new concept to everyone, no one could teach as well as the tutor. However attending the hybrid lesson 12 truly changes everything. I am VERY VERY clear about the whole concept. And I could practice all the questions easily by referring to your class. The only issue I noticed today is that the camera tends lag if you move too fast. Other than that, I have nothing to complain. Everything was clear. I could see the screen and the tutor clearly by minimizing either 1. Thank you for making this happen! I hope this will benefit your future students too! | Pass |
| В | Medical leave during lesson 11, present for all other lessons | The hybrid class was helpful. I managed to follow most of the lecture and the majority of the tutorial questions. The only improvement needed is I can't see the whiteboard clearly. ^[2] | Pass |
| С | Medical leave during lesson 12 | Yes, it is very useful. I am glad I am able to join. I think the audio can be a bit better as some parts I cannot really hear what you were saying. Maybe you were too far away plus the background noises. But overall, it is really helpful. Thank you. | Pass |
| D | Medical leave during lesson 12 | The hybrid is quite good. Can see the whiteboard and screen at the same time, so that is the advantage. | Pass |

[2] Hence the move to smart classroom. B suffered no deterioration in academic quality as a result of the hybrid conduct.

Pilot 2

9. The hybrid learning Pilot 2 was conducted for the same Pilot 1 module in the Oct 2022 semester. The class comprised 21 adult learners and spanned across 15 evening lessons of 3.5 hours each. Of the 15 evening lessons, 8 were conducted fully synchronously online and 7 inperson. Of the 7 in-person lessons, 4 were conducted in a hybrid manner. Groups were rostered to attend remotely to familiarise all learners with the hybrid modality. For some of the lessons, some learners who were not rostered also attended remotely due to exigencies of work or feeling unwell. Details of hybrid lessons are tabulated in Table 3 and of feedback from 13 learners in Annex A.

| LESSON NO. | EQUIPMENT | ΤΟΡΙϹ | REMOTE LEARNER(S) | REMARKS |
|------------|-----------------|------------------|----------------------|--|
| 3 | Smart Classroom | Topic 2 Part I | [3] Group 1 | Topic is assessed in |
| 5 | | Topic 2 Part III | Group 2 | 30% of module grade |
| 7 | | Topic 4 | Group 3 | Topic is assessed in Test 1, which comprised 15% of module grade |
| 11 | | Topic 5 Part I | Group 4 | Topic is assessed in Test 2, which comprised 20% of module grade |

TABLE 3: DETAILS OF HYBRID LEARNING PILOT 2 LESSON CONDUCT

Observations

Pilot 1

10. Learners attending remotely found hybrid lessons to be beneficial and have contributed towards their **skills mastery**. In fact, learner A would have risked failing if not for the pilot hybrid lessons conduct, given that group project and Test 2 comprised 50% of the module final grade. For the other learners, B, C and D, their module grade would likely be impacted negatively without the pilot hybrid lesson conduct, given that the topic 6 required learners to have a good foundation in topic 5.

11. Anecdotally, learners attending in person during the hybrid lessons also appreciated the **opportunity to interact** with their team mates, especially during the lesson on group project consultation, as opposed to not at all if hybrid lessons were not available. In fact, there were

^[3] While it is difficult to attribute the performance due to learning modality, it was however observed that the academically stronger groups were in class for lessons tested in Test 1 and 2 while the weaker groups were learning remotely for topics tested in Test 1 and 2.

repeated requests for hybrid learning conduct during the student evaluation survey conducted at the end of the semester. There was a learning curve on the part of the educators to facilitate hybrid lessons. Beyond **availability of tools and technical competency** to operate those tools, **andragogical competency** to design, curate and facilitate hybrid learning and collaboration between in-person and remote learners was also critical.

Pilot 2

12. 8 out of 13 learners, or 62%, felt positive about hybrid learning and this could be attributed to **educator competency** (10 of them opined that their educator adapted to hybrid learning very well and felt comfortable reaching out to their educator) and **interaction** with other learners and educator (11 out of 13 felt that interaction was enough). Notwithstanding, only 6, or 46% of them found it to be somewhat effective in helping to achieve their learning goals and hence would want hybrid learning to be made available in future. It could be due to the **difficulty in keeping up with the coursework** during hybrid learning (5 out of 13 rated it as somewhat often). As the groups in this pilot class were asked to **move online involuntarily**, the learners may not be thoroughly prepared and ready, this could have also affected their learning experience. The learning experience for some sessions were regrettably also affected by technical issues, such as audio quality and internet connectivity.

Recommendations

13. Ensuring academic quality and parity between in person and remote learners in hybrid lessons is crucial to the success of a hybrid learning conduct (B., 2021). Learning from the pilots, this can be achieved via a 5-prong approach, that of ensuring the:

- a. Availability and conduciveness of tools and / or facilities (infrastructure);
- b. And ragogical and technical competency of educators;
- c. Suitability of programmes;
- d. Suitability and readiness of learners; and
- e. Availability of policy direction.

Infrastructure

14. As evidenced in Pilot 2, hybrid learning will require a stable internet connection, video conferencing setup, live-streaming technologies, recording and playback capabilities. With regards to the availability and conduciveness of tools and / or facilities, a **pre-assessed and approved list of tools and / or venues** may be a good start. For instance, certain market reviewed video conferencing and live-streaming tools as well as smart classrooms akin to those situated in ITE and NP may suffice as a start. Availability of good, timely and responsive technical support to both learners and educators is also a key factor to consider.

Educators

15. As evidenced in pilot 2, educators make the difference between positive or negative learners' experiences and potentially impact the overall success of a hybrid learning implementation. Planning for and designing a successful hybrid lesson requires educators to craft a comprehensive instructional strategy for engaging with and assessing all learners to ensure that the desired learning outcomes are achieved. Building in opportunities for peer interactions and team-based collaboration across both in-person and remote modalities is important.

16. Admittedly, teaching in a hybrid learning environment may be challenging for some educators because they may not be fully competent at communicating with in-person and remote learners at the same time or integrating traditional materials with advanced technologies (e.g., chat rooms, virtual white boards, cameras, etc.). Hybrid lessons, if not properly conducted or with frequent technical problems encountered, can in fact cause disruptions to those learning in person. Notwithstanding, hybrid lessons also allow sharing by participants and industry guests attendees, etc which could enhance the learning of learners attending in-person.

17. To address the andragogical and technical competency required of educators, the **WSQ Advanced Certificate in Learning and Performance (ACLP) with Module 3: Facilitate Technology-Enabled Learning** may be the initial benchmark to adopt. And in the context of the polytechnics, it may be fair to suggest that with PET teaching all gradually adopting a hybrid lesson approach, the of competency polytechnic educators at communicating with inperson and remote learners at the same time should over time not be a concern. Fundamentally, educators can take one of two approaches with their remote learners in hybrid lessons: they can simulate the in-person experience or differentiate online engagement (Crook & Crook, 2022). There are also tips sheets online to guide educators in the preparation and conduct of hybrid lessons (Grand Valley State University, 2022).

Programme(s) / Lesson(s)

18. As to suitability of programmes, we could begin with **programmes / lessons that had been effectively conducted fully (or partially) online previously** to ensure that learning outcomes have indeed been previously achieved via remote learning.

Learners

19. Hybrid learning merges the dichotomy of in-person and online learning. One of the goals of hybrid learning is to make the online and in-person experiences equal for learners. Class participation is necessary regardless of where and how learners attend. The online experience should not be a lesser version of the in-person experience; it should be an alternative to it. Hence attending hybrid lessons remotely will require the learner to actively participate and be engaged.

20. While it might be difficult to assess the suitability and readiness of learners, to minimise risk while ensuring that the learning experiences were not diminished or affected, a **cap** could be set on the **number or percentage of in-person lessons that learners may choose to attend** remotely. Besides not all learners are ready to keep learning modalities / options entirely open. There is value for most learners to have some in-person lessons, some more than others. It is therefore good to stipulate some requirements on in-person attendance, e.g. X% of classes must be attended in-person. This would also help balance the number of in-person and remote learners in the hybrid lessons and ensure a certain level of social engagement and support among learners. **Trial hybrid lessons** should also be conducted prior to enhance learners' and educators' readiness.

Policy

21. Having a policy adds consistency and structure to hybrid learning. It also sets the expectations for training providers, educators and learners. Rules of engagement can be formulated and Communities of Practice can be formed to share best practices.

Conclusion

22. Adult learners play multiple roles at work and home, have a set of specific and unique needs, and are different from PET learners. Possessing greater maturity, learning motivation, and also career and life-oriented objectives, they have different expectations for their learning, as well as face different pressing demands. Giving learners the flexibility to move between modality(ies) will help to expand the reach and participation of adult learning programmes in Singapore and beyond, while ensuring that training partners remain relevant.

23. As the "new normal" sets in, much of the workforce has moved to either a fully remote or hybrid work environment. Although lacking in an extensive body of research, adult learning must adopt a similar hybrid approach to allow learners the flexibility to learn in a way that supports their life circumstances.



How effective do you think the hybrid learning mode was in helping you achieve your learning goals?



How well did your teachers adapt to the hybrid learning mode?



How often did you find it challenging to keep up with the coursework during the hybrid learning mode?



Do you feel like you had enough interaction with your teachers and classmates during the hybrid learning mode?



Did you feel comfortable reaching out to your teachers for help during the hybrid learning mode?

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