

West Partnership

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Effective Blended Learning



GLASGOW
CITY REGION
Education

1 SUMMARY

This paper is the second instalment of two papers on blended learning and follows on from our paper ‘An Introduction to Blended Learning’. Our first paper offered an introduction to the concept of blended learning. If you are unfamiliar with blended learning, we suggest you read that paper before reading this one.

Here we summarise existing research that has identified the benefits, barriers, and challenges of blended learning. We then offer solutions to the difficulties that blended learning facilitators have frequently experienced. Based on such ideas, we offer recommendations on what Scottish educators should be considering in offering education during these unprecedented times. Throughout we provide digital hyperlinks to cited sources of information, but also present a range of resources in a reference list should you wish to extend your reading.

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2 BLENDED LEARNING: BENEFITS, BARRIERS AND CHALLENGES

As discussed in our first paper, blended learning has been used extensively across Higher Education and elsewhere in the world within school-age populations. Here we summarise some of the research that has identified the benefits, barriers, and challenges associated with blended learning.

2.1 REPORTED BENEFITS

In reflecting upon experiences of blended learning within Higher Education so far, several authors have identified key benefits to the approach. Bowyer and Chambers ([2017](#)), for example, present a neat overview of the benefits of blended learning:

Improved Outcomes – There is some evidence that blended learning approaches improve student retention and attainment of learning outcomes in Higher Education settings.

Strategic use of classroom time – Various advocates of blended learning note that the use of online delivery can turn in-person sessions into an opportunity for more in-depth learning. Instead of direct instruction followed by homework to embed learning, a flipped classroom model that uses online delivery can free up time for the teacher to correct individual misunderstandings or misinterpretations.

Online discussion – Blended learning that uses virtual learning environments can use online discussion activities, both **asynchronously and synchronously**¹, to develop a sense of community outside of the classroom.

Others agree with such sentiment, with Stein and Graham ([2020](#)) recently arguing that blended learning has three main benefits:

1. Increased access and convenience

- a. Learners can access their learning communities from their smartphones or computers and can engage in learning at a time convenient to them

2. Improved learning

- a. Research from the US Department of Education ([2009](#)) found that blended learning courses had higher levels of attainment than comparable courses that were delivered either entirely in-person or online.

3. Decreased or flexible costs

- a. Blended learning may save costs to both teachers and learners. Less time and money are required in travelling to a campus and educators can access a

¹ **Asynchronous or Synchronous** remote learning relates to the time-based nature of learning. A synchronous learning environment means that students and teachers engage in learning at the same time. Asynchronous means that student learning takes place away from direct contact with teachers.

global pool of free resources.


Those who have examined blended learning amongst non-Higher Education environments have found similar benefits. In a report for the Federation of Canadian Secondary Students, Gotovsky et al. (2017) identify key benefits for learners and teachers in secondary education. Their reported advantages apply to non-adult learners and are summarised in the table below:

Benefits to teachers	Benefits to Learners
Access to global resources and materials	Increased learner interest and focus
Can use resources that are free to use	Provides learner autonomy and self-motivation
Can provide a variety of resources/tasks that fit individual learning styles	Promotes learner ownership and empowerment
Can prioritise in-person contact with learners	Learner can control pace of learning
Can utilise digital technologies that appeal to digitally engaged learners	Develops learners' skills in research, decision making and self-learning
Can use flexibility within your teaching approach	Enhances learner's computer literacy
Can provide feedback online	Can receive feedback whilst at home – particularly apt given current circumstances

2.2 BARRIERS AND CHALLENGES

Despite the benefits of blended learning detailed above, various authors have identified barriers and challenges to effective blended learning. Setting aside for a moment, the huge challenge of addressing inequity of access to online learning, studies suggest the primary barrier to blended learning relates to student engagement. Research from Higher Education shows that blended learning is ineffective when students fail to engage with online components of their tuition (Palmer et al., 2017). Here are some of the main issues identified within Higher Education populations:

- a. *Learning styles* – some educators have found some learners instantly disengage from online activities as they have not used them before, so they assume they cannot do it.

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- b. *Pedagogic design* – the link between online and in-person activities needs to make sense, otherwise students may struggle to see the value in completing online activities.
 - c. *Relationships with staff and peers* – evidence suggests that distant relationships between teachers and learners, and amongst learners themselves, is characteristic of ineffective blended learning.
 - d. *Interaction* – blended learning courses that fail to build in interaction are ineffective as learners do not identify themselves as part of a community.
 - e. *Accessibility* – unclear instructions surrounding activities and difficulties using learning technology are characteristic of weak blended learning
 - f. *Clarity of purpose* – weak blended learning fails to clearly explain the use of activities and how they link to other elements of teachers’ planning.
 - g. *Student autonomy* – Higher Education students are aware of the need to work independently within blended learning approaches but may be unsure of how to go about doing so. This is likely to be an even bigger challenge for younger learners.

Practitioners working remotely with children and young people across early years, primary and secondary sectors will recognise most, if not all the above challenges. The West Partnership’s paper on effective remote and digital learning ([2020](#)) notes additional challenges for children and young people undertaking remote learning in home environments: learner engagement, access to appropriate work space and difficulties associated with establishing a working routine are all significant factors. Educators and parents will be familiar with the difficulties associated with keeping children and young people on task, particularly with all the additional distractions present when working from home.

3 HOW MIGHT WE USE BLENDED LEARNING EFFECTIVELY IN SCHOOLS?

Based on the research from Higher Education and school-age learners in the US, we can arrive at some conclusions regarding how we might best adopt blended learning now. We find the top 10 challenges and tips from Jennifer Hofman ([2011](#)) to be particularly useful. Hoffman divides her top 10 challenges into technical, organisational, and instructional, providing solutions for each. Below we address some of these challenges and consider how they apply within our current context. We also consider the importance of continuous evaluation and the opportunities that outdoor learning may provide.

3.1.1 Technical



1) Ensuring participants can successfully use the technology

- a. If participants do not have access to technology or have not been adequately instructed in how to use such technology, then effective blended learning is impossible. Learners need to be able and capable to engage in online learning. We should therefore consider accessibility and usability in how we deliver blended learning. We may need to dedicate additional time to supporting children and young people on how to use particular types of online technology. Use of platforms already familiar to learners are likely to minimise barriers to engagement. It is also worth remembering that many learners will be accessing content on portable devices such as tablets and smart phones. Therefore, apps and platforms which function well on small screens may be more advantageous.

2) Resisting the urge to use technology just because its available

- a. We are now at a stage where a huge range of technological options are available. This does not mean we should be using them all. Each new piece of technology introduced into a blended learning system means time must be invested for both the practitioner and the participant to learn how to use the technology. As a rule, choose the simplest form of technology that will facilitate the achievement of learning outcomes amongst your children and young people.

3.1.2 Organisational


3) Overcoming the idea that blended learning is not as effective as in person teaching in a classroom

- a. It is likely that many practitioners will be concerned that the relative newness of blended learning amongst children and young people will mean it is not as effective as teaching in a classroom. Existing evidence from the US suggests this is not the case, but we should also understand that highly effective blended learning will take time to develop. Expectations should be managed across educational systems. We are confident that teachers will grow in experience and rapidly develop as deliverers of highly effective blended learning.

4) Redefining the role of facilitator

- a. Teaching via blended learning often puts the teacher in a role that differs from what would be experienced within a more traditional classroom model. For example, if following a flipped classroom model the role of teacher is different to the role of a teacher in a classroom. We encourage teachers to immerse themselves in their new learning environments. Effective blended learning will also be aided by teachers getting the learners' perspective. As such, collaboration amongst colleagues is essential.

5) Managing and monitoring participant progress

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- a. Using virtual learning environments for blended learning purposes gives teachers an opportunity to monitor their learner's engagement with material, activities, and assessments. We can see student's progress through **learning analytics**², which gives us information on who has accessed what resources we have provided or completed the tasks we have set. Effective blended learning inevitably requires teachers providing support and encouragement for those who have not engaged appropriately.

3.1.3 Instructional

6) Focusing on how to teach, not what to teach

- a. Try to avoid focusing too much on how you are going to teach online. Not everything is suited to be delivered online. Review the curriculum content and consider which elements are more appropriate for online delivery. If a highly effective in-person session is not easily translated to online delivery, then, if possible, reserve this section of the course for in-person teaching. This may require a re-design of your curriculum plan, course structure and timelines.

7) Matching the best delivery medium to the performance objective

- a. When planning for learning, teaching and assessment ensure that you focus on the learning outcomes before the methodology. The principles of highly effective learning, teaching and assessment apply to blended learning to the same extent as in-person teaching. Practitioners need to have a good grasp of how to plan for high quality learning, teaching and assessment as this will allow them to match individual learning tasks/activities to either in-person or online slots appropriately. Making decisions about the technology should be the final step in your planning process. As in point 4, collaboration with peers and the sharing of good practice will reduce bureaucracy as well as allow practitioners to share and agree standards.


8) Keeping online offerings interactive rather than just talking at people

- a. Research on blended learning, and online learning more generally, has found that effective learning environments are produced when learners identify as part of their learning communities (**communities of inquiry**). It is unlikely that students will identify with such communities if they cannot take an active role in creating them. Consider how to keep your online offering pupil-led and how you can place pupils at the centre of their learning.

9) Ensuring participant commitment and follow-through with non-live elements

- a. Consider how you will monitor elements of work that your children and young people undertake away from teacher-led supervision. This is likely something you already do with homework and this same rule applies to

² **Learning analytics** is the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimising learning and the environments in which it occurs.



online learning. Activities that can double up as formative assessment are particularly useful in keeping learners engaged within blended models.


10) Ensuring all elements of the blend are co-ordinated

- a. As in traditional direct teaching, planning is key. Your learners need to have a clear understanding of expectations, an outline of what their online learning will involve, who they can contact for help and where they can access resources. This is already a key element in planning for high quality learning, teaching and assessment. As in online learning, **teaching presence** is key in generating an effective blended learning environment. It is important that you remain highly visible to your children and young people.

3.2 CONTINUOUS EVALUATION

The role of evaluation is a recurring theme in research on blended learning. We already engage in various forms of evaluation that improve our practice. Similar principles apply with blended learning. The creation of effective blended learning needs continuous evaluation to identify what works and what does not. Teachers must reflect on their practice and adapt quickly. Bowyer and Chambers (2017) summarise some key ways in which teachers can reflect upon their move to blended learning through evaluation:

- 1) **Measuring course outcomes** – practitioners should consider how they can evaluate the effectiveness of their blended learning. What are the completion rates of activities that have been set? How many learners are demonstrating the achievement of learning outcomes? How well are learners demonstrating achievement of success criteria?
- 2) **Measuring learner engagement** – practitioners should reflect and evaluate on how learners are engaging with their blended approach. Research suggests looking at behavioural, emotional, and cognitive factors (Fredricks et al. 2004). *Behavioural* refers to learner actions; are learners participating online? Are learners completing activities that are used within flipped classroom approaches? *Emotional* factors include how your learners are responding to learning via a blended approach. Do children and young people understand their new approach to learning or are they (too) confused? Cognitive factors refer to the psychological investment of your learners. Are learners doing the minimum required? Are they accessing the full range of resources you are offering them?
- 3) **Measuring learner satisfaction** – Are learners satisfied with the learning they have received within a blended approach? This will likely relate to the concepts of teaching presence and communities of inquiry detailed above (see glossary for concise definitions). Children and young people are likely undertaking blended learning on this scale for the first time. It is important that the teacher is visible and that the learner's identification to their class remains. Teachers should speak



with children and young people to make sure they understand what is required of them and to identify any areas of online learning that they are unsure of.

3.3 OUTDOOR LEARNING IN SCOTLAND

Given that it is unlikely that we will be rapidly returning to full classrooms, we may wish to consider the opportunities that outdoor learning provides. As social distancing is likely to continue for some time, utilising outdoor spaces may be one way for teachers to maximise the effectiveness of in-person tuition within a blended learning approach.

Guidance on outdoor learning was produced by [Education Scotland](#) prior to COVID19, and the Scottish Government ([2010](#)) have offered guidance on how practitioners may harness outdoor learning for the achievement of Curriculum for Excellence objectives.

Detailing the pros and cons of outdoor learning, and ways to provide effective outdoor learning, is beyond the scope of this paper. However, we wish to direct you to the Institute of Outdoor Learning's ([2015](#)) report on High Quality Outdoor Learning; the lessons of which may well be helpful for our current context.

4 GLOSSARY


Concept	Definition
Asynchronous learning	Children and young people undertake learning activities without direct supervision from the teacher. These activities may be digital or traditional. Learners can communicate with their teacher at their own pace or within a set time. For example, a teacher setting a specific project and asking young people to check in through a discussion board if they have any questions.
Blended learning	Includes learning that happens in real time (synchronous), alongside a teacher such as online discussions and learning which happens at the learner's pace (asynchronous) such as project work.
Communities of inquiry	Effective online learning creates 'communities of inquiry' consisting of learners who feel a sense of attachment to their classes. The challenge for Scottish educators is in maintaining the sense of community that was built within in-person classrooms prior to social distancing.

Flipped classroom	A pedagogical approach in which the conventional notion of classroom-based learning is inverted: students are introduced to the learning material before class with classroom time then being used to deepen understanding through discussion with peers and problem-solving activities facilitated by teachers.
Learning analytics	The measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimising learning and the environments in which it occurs.
Outdoor learning	Outdoor learning encompasses the entire range of learning experiences undertaken outside
Remote learning	Occurs when a learner and teacher are separated by time and/ or distance and therefore cannot meet in a traditional classroom setting. Information is typically transmitted via technology such as email, discussion boards, video conferencing, etc. No physical presence is required.
Rotational model	Learners rotate on a fixed schedule between learning online in a one-to-one, self-paced environment and sitting in a classroom with a traditional face-to-face teacher.
Synchronous learning	Online learning in which children and young people can learn from their teacher in real time. For example, a teacher teaching to a group of children or class using digital technologies.
Teaching presence	Teaching presence refers to the visibility of the teacher within online learning environments. Research has shown remote learning to be ineffective when the relationship between teacher and learner is too distant.
Virtual Learning Environments (VLE)	Digital platforms that facilitate learning by providing a space to house resources, deliver content and provide instruction/feedback. During social distancing, the use of VLE's such as Glow are needed to provide learners with materials and resources. Platforms such as Microsoft TEAMS or Google Classrooms may also be used as a virtual learning environment and may be handy for ensuring continued interaction between teacher and pupil.

5 RESOURCES

5.1 USED WITHIN REPORT

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- Bowness, J., Stuart, J. and Morrison, E. 2020. Effective Remote and Digital Learning. West Partnership. Access at:
<https://blogs.glowscotland.org.uk/glowblogs/public/westpartnership/uploads/sites/7660/2020/05/26144424/WP-Effective-Remote-and-Digital-Learning.pdf>
- Bowyer, J. and Chambers, L., 2017. Evaluating blended learning: Bringing the elements together. *Research Matters: A Cambridge Assessment Publication*, 23, pp.17-26. Access at: <https://www.cambridgeassessment.org.uk/Images/375446-evaluating-blended-learning-bringing-the-elements-together.pdf>
- Education Scotland. Outdoor Learning Practical guidance, ideas and support for teachers and practitioners in Scotland. Access at:
<https://education.gov.scot/nih/Documents/hwb24-ol-support.pdf>
- Gotovsky, K., Lee, C., Bhimani, J., Ding, K., Vahed, M., Hossain, R., Min, R., Yu, R., Javed, S. and Nguyen, T., 2017. *The future of blended learning: a report for students and policy makers*. Federation of Canadian Secondary Students Access at:
<https://static1.squarespace.com/static/53c2060ae4b0db3d3fa5937f/t/591ca78f6a49632377fa8fd5/1495050128097/Future+of+Blended+Learning.pdf>
- Hofmann, J., 2011 Top 10 Challenges of Blended Learning. Access at:
http://www.insynctraining.com/assets/landing_fulfillment/Blended%20Learning%20Training%20Magazine%20March%20April%202011.pdf
- Institute of Outdoor Learning. 2015. *High Quality Outdoor Learning*. Access at:
<https://www.outdoor-learning.org/Portals/0/IOL%20Documents/HQOL/2049-High-quality-outdoor-learning-web-version.pdf?ver=2017-04-14-165244-293>
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- Learning and Teaching Scotland. 2010. *Curriculum for excellence through outdoor learning*. Scottish Government: Edinburgh. Access: <https://education.gov.scot/Documents/cfe-through-outdoor-learning.pdf>
- Stein, J. and Graham, C.R., 2020. *Essentials for blended learning: A standards-based guide*. Routledge. Access at:
https://www.researchgate.net/profile/Nguyen_Trung_Hiep3/post/Can_anyone_suggest_to_me_any_good_Research_Papers_Articles_etc_on_Blended_Learning/attachment/59d63e2479197b807799acf5/AS%3A422799794806785%401477814734350/doc



[wnload/%5BJared_Stein%2C_Charles_R._Graham%5D_Essentials_for_Bl%28Book_4You%29.pdf](#)

5.2 OTHER USEFUL RESOURCES

<https://files.eric.ed.gov/fulltext/ED535180.pdf>

<https://aurora-institute.org/wp-content/uploads/The-Rise-of-K-12-Blended-Learning.pdf>

https://jolt.merlot.org/vol11no1/Florian_0315.pdf

<https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-017-0043-4>

https://www.lexialearning.com/sites/default/files/resources/Blended%20learning_WhitePaper_OverviewImplementation_4Keys.pdf

<https://www.imaginelearning.com/blog/2018/09/5-effective-blended-learning-strategies>

<https://insights.learnlight.com/en/articles/7-key-elements-for-effective-blended-learning-programs/>

<https://www.sciencedirect.com/science/article/pii/S1658361213000036>

<https://maken.wikiwijs.nl/userfiles/f7d0e4f0bd466199841ede3eea221261.pdf>

<https://docplayer.net/13967721-A-research-report-odysseyware-instructional-design-strategies.html>

<https://www.gtcs.org.uk/News/teaching-scotland/70-different-class.aspx>

<https://dl.acm.org/doi/abs/10.5555/2811036.2811038>

<https://education.gov.scot/improvement/learning-resources/the-moderation-cycle/>

https://issuu.com/educationinternational/docs/2020_research_covid-19_eng

<https://education.gov.scot/nih/Documents/dt19-inveralmond-yammer.pdf>

5.3 TO REFERENCE US

This paper was written by James Bowness, Elizabeth Morrison, John Stuart and Sarah Green on behalf of the West Partnership. To reference the paper use:

Bowness, J., Morrison, E., Stuart, J. & Green, S. 2020. *Effective Blended Learning*. West Partnership