Chapter 15
Measuring the Success of Active Blended Learning

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EXECUTIVE SUMMARY

Active blended learning (ABL) is a defining aspect of the University of Northampton and has generated national and global interest. Within a few months of the author taking up a senior leadership position with the university, ABL was a significant positive factor in the university's ability to lock down the campus in response to COVID-19 and deliver education remotely. However, there is a scarcity of evaluation of ABL to provide evidence of the scale of its adoption in the university, its forms in different academic disciplines, its impact on different groups of students, and how to improve its effectiveness. Ideally, evaluation is always integral to pedagogic initiatives. It is however a reality that evaluation comes with challenges. This chapter explores why evaluation is so important and also so difficult. It proposes a way forward in the context of ABL by combining nationally available metrics with small-scale case studies.

INTRODUCTION

Active Blended Learning (ABL) is the University of Northampton's educational approach, which focuses on students' construction of knowledge, skills development and digital literacy. It draws significantly on Constructivism based on the work of Piaget (1957), Vygotsky (1978), Dewey (1938) and others, which has been described and developed extensively by many educationalists and theorists. McLeod's (2019) concise summary provides a useful synopsis. ABL is derived from versions of Constructivism that focus particularly on the development of confidence and skills through active learning and social learning. Its specific antecedents are theories of social learning (Dewey, 1938; Wenger, 1989), and practices such as Problem-Based Learning (Boud & Feletti, 1997) and Enquiry-Based Learning (Herman & Pinard, 2015). ABL unites these pedagogic approaches in a learning environment, which is both physical and virtual, combining face-to-face activities with synchronous and asynchronous digitally enabled learning. This creates a rich and flexible environment with the potential to support students effectively and efficiently, in a university campus designed specifically for this approach to learning. The University

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of Northampton Waterside campus is digitally enabled, with spaces designed for collaboration, small group learning, and one-to-one conversations. Very little space exists on campus that is suitable for larger group meetings or lectures.

The pedagogic theory that underpins Active Blended Learning stacks up strongly; it is an exciting and convincing approach, which wins over hearts and minds of academic staff. However, little evidence of positive impact is available, either published externally or in 'grey literature' available internally within the University. This chapter explores the importance of evaluation, the challenges it presents, and proposes a way forward.

WHY EVALUATE?

The evaluation of educational processes is necessary to drive improvement, by identifying what works best and enabling information about the effectiveness of educational approaches to be shared amongst university staff and between institutions. As Gibbs (2010, p. 7) recognises: "There is clear evidence that educational performance and educational gains can be enhanced by adopting certain educational practices…Pooling data across such innovations… provides a valid basis to guide other institutions in the adoption of practices that are likely to be effective."

Evaluation occurs as a consequence of the desire to improve and of many other considerations. It can be used to confirm that the intended goals (whether of the university, the course, or the module) are being achieved and that the resources of time and money are being invested wisely and with good effect. Demonstrating that universities teach well and actively strive to improve the provision for which fees and grants are received is intrinsic to professionalism, whether that professionalism is academic, managerial, or in professional service areas. If an innovation works well, it should be shared widely, based on evidence of its effectiveness. If it works occasionally but not consistently, curiosity should drive further investigation of when and why it is effective, and refinement of practice. Universities need to know whether an innovation works for all students or only for some. They should hold themselves responsible for seeking pedagogies that reduce and do not exacerbate existing social inequalities. For illustration, UK higher education currently demonstrably fails to provide equal opportunities for all students to succeed. The attainment gap between White students and students from Black and Ethnic Minorities groups is one example of this (Cotton et al., 2015); lower completion rates for care experienced students and students estranged from their families is another (Bland, 2018; Costa et al., 2020; Sebba & Luke, 2019). As employers, universities have a responsibility to develop the capabilities of their staff; enabling those who teach to improve as educators is an important aspect of this. Furthermore, universities need to leverage evidence of educational success to attract students and to thrive reputationally and financially as an organisation. For all these reasons, evaluation of educational initiatives must be an intrinsic part of higher education.

THE CHALLENGE OF EVALUATION

Despite its importance, evaluation is often a neglected aspect of educational initiatives. Evaluation of educational projects, interventions and initiatives is frequently the least developed and satisfactory stage. Reasons include that evaluation can be an afterthought and consequently may not be integrated fully

into project design. Shortage of funding and resources can make evaluation appear to be a 'nice-to-have' option to be added later or disregarded, rather than essential to the design of a project. Sometimes projects focus on proof of concept or on the challenge of the initial implementation of an innovation. They may overlook the value that can be achieved over a longer time frame as a result of providing evidence to others of success and of building on what has been learnt in order to improve and increase benefits realisation (discussed, for example, by Sharpe et al., 2006, p. 3).

Perhaps an even greater obstacle to effective evaluation is the inherent complexity of measuring the success of learning and teaching interventions and initiatives. Multiple variables impact on successful educational outcomes. These include students' prior achievements, their motivation, their mindset, the wider context of their lives, and any number of aspects in their educational environment, such as group size, resources available, subject discipline and level of study, all often deceptively hard to define. Gibbs, whose work was highly respected by the UK Minister for Universities and Sciences at the time, David Willetts, and informed government policy, attempted to create a robust framework for evaluating higher education, which he described as "a complex business with many interacting dimensions of quality in many varied contexts" (Gibbs 2010, p.12). He adapted a model developed by Biggs (1993) which envisages education as a system with 'Presage', 'Process' and 'Product' variables interacting with each other. Presage variables are "those that exist within a university context before a student starts learning and being taught" (Gibbs, 2010, p.12), proposing that even before the educational initiative is evaluated, there are multiple variables to be taken into account, such as prior attainment of students and the resources and culture of the university.

The importance of considering factors which exist prior to teaching is particularly salient when it is considered that evaluation not only has the potential intrinsic benefits discussed above (such as improving a specific initiative) but also extrinsic purposes. Examples of evaluation deployed for extrinsic purposes include metrics used in league tables, which generate institutional comparisons with the intention of influencing student recruitment. Metrics may also be used in reports which shape perception by the government of performance and contribution, with long term consequences for higher education policy and resourcing.

Whether metrics should be used to indicate and compare the relative success of institutions, or whether prospective students can reliably use league tables to set their expectations of the universities they apply to, have been frequently contested. Gibbs concludes his description of a possible evaluative framework for higher education with: "…it seems unlikely that comparative indicators of quality currently available in the UK could provide prospective students with a valid basis to distinguish between individual courses with regard to their educational quality. The collation of currently available data into league tables is invalid and misleading." (Gibbs, 2010, p.7). Gibbs distinguishes between evidence collected for the purposes of identifying practices that work and increasing their adoption across other higher education providers (and presumably within providers too, where pockets of good practice can be extended more widely), and the ability to compare provision between providers. This point is returned to later in this chapter when reviewing the public metrics of teaching quality in relation to ABL.

The major UK national Learning Gain programme provides another illustration of the difficulty of measuring the effectiveness of higher education at scale. Learning gain, for the purposes of the programme, was defined as "improvements in knowledge, skills, work-readiness and personal development made by students during their time in higher education" (Office for Students, 2020). The five-year programme, commissioned by the Higher Education Funding Council for England (HEFCE) in 2015, aimed to develop universal metrics for learning gain which would allow direct comparisons between

higher education institutions. By the time the final programme report was published, HEFCE had been replaced by the Office for Students. The final report concluded in words which echoed those of Gibbs (2010), that it was not possible to identify metrics of the quality of education which can be used between institutions for comparative purposes:

Measuring learning gain is complex and contested. Overall, what has emerged from the pilot projects and related international initiatives is that there is no simple 'silver bullet' metric that accurately and effectively measures student learning comparatively across subjects of study and institutional types, despite appetite from government ministries and the media. (Kandiko Howson 2019, p.7)

Kandiko Howson (2019) draws similar conclusions to Gibbs (2010). It is possible to collect evidence which shows whether an innovation is effective within an institution: "the pilot projects are developing tools and approaches that have the potential to offer valid and robust accounts of learning gain, at least within specific institutional, subject and pedagogical circumstances…" (Kandiko Howson 2019, p.7). However, evaluating the effectiveness of educational initiatives at scale is very challenging.

There is an absence of larger scale, robust studies, which ask and answer significant questions about how to improve the quality of university teaching. The Learning Gain programme (Kandiko Howson, 2019) was an attempt to address this absence but was unable to do so. What has emerged consequently is a culture of evaluation by case study, often qualitative or with numbers too small to be statistically significant, and variables too distinctive for future case studies to build on the work of former ones.

So far, this chapter has discussed the importance of evaluating educational initiatives in general, and some of the challenges. It has aimed at establishing the importance of evaluation in refining practice and sharing what works. It has problematised evaluation based on the number of variables which are hard to control, and made a case for the difficulty of comparing providers based on metrics. In response to the evident challenges of evaluation, this chapter will go on to champion the value of small case studies combined with publicly available metrics, and consider some aspects specific to ABL, including how to define ABL, and how to define educational success.

DEFINING ACTIVE BLENDED LEARNING

Before ABL can be evaluated it must be defined with sufficient clarity to establish agreement about what is being measured and what is excluded. If ABL is a cluster of pedagogies, or a philosophy that unites pedagogies, this is a potential barrier to evaluation, as the loose definition makes the parameters of any planned study difficult to establish.

Active Blended Learning means that students learn through activities based on constructivist principles, which develop their subject knowledge and their confidence in applying professional skills. These activities take place in an environment that flows smoothly between face-to-face and online. ABL values community, collaboration, flexibility, and accessibility, whether on campus or remotely, because it recognises the benefits to students of active engagement, collaboration with tutors and peers, digital fluency and flexibility of place and time of study.

Within the University of Northampton, the characteristics of Active Blended Learning have been identified as:

- Close interaction with tutors, small group teaching and team work
- Activities that reflect the workplace and accommodate learner needs

- Future-focused, digitally rich learning environment
- Accessible and up-to-date online resources and materials across all subject areas
- Access to information and resources that is straightforward, consistent and reassuring
- Supportive culture of motivation to progress and succeed, with students' personal tutors playing a key role
- Focus on academic and social belonging opportunities, including mentoring and peer support mechanisms.

Articulating these characteristics helps teaching staff understand what is expected and also what is supported by the university. However, when it comes to evaluating the extent to which ABL is used across all teaching and what variants of it are more successful, this definition contains considerable ambiguity. Some of the definitional ambiguity is situated in concepts of scale or quality. For example, how can the 'closeness' of interaction between tutors and students be measured? Contact hours may seem at first glance to be a straightforward metric but analysis quickly shows this is not the case. It is difficult to compare one hour of contact in a tutorial to one hour of contact on a three day field trip or one hour of contact during a two week work placement, or one hour of contact in a large lecture, for example. Attempts to define contact hours in the UK higher education sector in 2018, or 'teaching intensity' as it was renamed, were unsuccessful. The Office for Students (2018, p.5) reported that "the teaching intensity measure was a significant burden to providers and was not found useful by panel members". 'Close interaction' would be an even more difficult concept to agree on a definition.

Other measurement difficulties are also evident. What counts as a small group? Are all workplaces suitable to emulate in an educational environment? It is readily apparent that perceptions will differ, and the terms are not fixed and agreed. A further area of uncertainty could be whether all elements have to be present for the teaching to be ABL, or only a majority of elements, or only some, or only one. As a consequence of these different areas of ambiguity, it may be difficult to be specific about when ABL is taking place or not.

There is also a difficulty around uniqueness. There is nothing in the ABL definition which does not occur in other higher education teaching environments, although combinations and extents vary. It seems that in all likelihood, ABL is a concept which is realised on a continuum; a class, a module or a programme may combine different elements to different extents. Potentially the aspect which could be experienced by students as unique and therefore justify a distinctive designation is the combination of the elements coupled with the consistency and quality of implementation. ABL at the University of Northampton may not be unique because of the elements of its pedagogy but because of the way in which they are combined and the quality with which they are implemented. However, while this may be true in practice, it does not assist with a finite definition to enable evaluation.

So far this chapter has emphasised the importance of evaluation, some of the challenges of evaluating pedagogic initiatives in general, and some of the challenges of evaluating ABL in particular. In terms of steps to resolve these conundrums, this chapter suggests that Active Blended Learning be accepted as a cluster of principles and approaches, which can occur in combination or separately. The concept of ABL is aspirational, something to work towards but never finished or complete. There is room for subjectivity. The flexibility in this definition does not render it useless. An educational community which strives to incorporate the elements of ABL more often and better, and which holds a collective view that the pedagogic principles of ABL are desirable, will be strong, positive and effective. Rather

than focusing on the loose definition that makes it impossible to evaluate ABL, it points us towards the form which evaluation needs to take.

WHAT DOES SUCCESS MEAN IN PEDAGOGY?

Before offering suggestions for what effective evaluation of ABL could look like, there is a further area of difficulty to be considered. It will be apparent from the earlier discussion of the challenges of evaluation in this chapter that there is no single answer to the question about what success in pedagogy is. Edwards, Evans and Forsythe (2018) summarise this situation succinctly:

What we consider as valuable could encompass all manner of things: the development of engaged and responsible citizens; the nurturing and preservation of our cultural and creative heritage; the ability of our graduates to achieve personal fulfilment and happiness. But the political and funding climate inevitably directs us towards narrow economic conceptions of student outcomes. In practice this means full-time employment (preferably at graduate level) and high-level earnings…

As Edwards et al. (2018) identify, notions of educational success vary according to perspectives and institutional and policy priorities. Success for some could be undergoing individual transformation, achieving high marks, acquiring a professional qualification, being recruited into a graduate job, earning an above average salary, having 84% of students replying positively to a survey question on their satisfaction with their course, improving the pass rate for a module, or any number of other definitions, any of which could seem irrelevant to someone else. Success is not an objective concept.

PBL: When a Pedagogic Approach Is Effective But Some Students Dislike It

A further complication in evaluating success in pedagogy is the situation in which an educational intervention scores well on one or more dimensions of success but poorly on others. This has arguably been the case for Problem-Based Learning, which has been evaluated extensively and scores profoundly well on some measures but is not always enjoyed by students. Problem-Based Learning (PBL) emerged in the 1970s as a response to an increasingly crowded medical curriculum. The steady growth in medical knowledge required increasing amounts of memorisation by medical students, which despite being very strenuous provided no guarantee that students could apply their knowledge in real life, as they needed to do on entering the medical profession.

Obsolescence was also a problem. Medical knowledge continually goes out of date and needs to be replaced by current knowledge, meaning that knowledge acquired over years of study becomes obsolete at some point after students' graduation, a profound professional risk. PBL requires students to learn in teams through discovery and analysis. Medics educated via PBL have been shown to be more likely to keep up to date in their professional practice later in their careers (e.g., Tsigarides et al., 2017). PBL was also successful in reducing the achievement gaps between students based on race and prior access to education in South Africa in the 1990s. It was successful on the measure of reducing outcome gaps between student groups as well as on longitudinal measures (Schmidt, 1993).

However, negative student perceptions of PBL sometimes impede its adoption. Alessio (2004) reported that some students perceived PBL negatively, although there was no correlation between stu-

dents' negative perception and poorer assessment outcomes. The challenge at the heart of constructivist learning (of which PBL is a form) is experienced by some students as deeply uncomfortable because they prefer a highly structured learning environment (McCleod, 2019). PBL is not reliably a success from the perspective of students' experience, despite evidence of success according to other measures.

Three Measurable Dimensions of Learning Gain

The HEFCE/Office for Students Learning Gain programme was implemented with the goal of identifying a limited number of metrics, which could be used to measure and compare the success of higher education provision. The final report concluded that learning gain has three measurable dimensions:

- *measures of general cognitive gain – what students think and know;*
- *measures of soft skills development – affective measures of attitudes and how students feel, and behavioural measures of students' engagement; and*
- *employability and career readiness – largely behavioural measures of activities students have undertaken in preparation for the world of work.* (Kandiko Howson 2019, p. 6)

Regarding the definition of ABL as being a pedagogic approach which focuses on the student's construction of knowledge, skills development and digital literacy, Kandiko Howson's (2019) structural map of the three dimensions of learning gain clearly fits well with ABL. Despite there being no single measure that captures all dimensions of learning gain, she was optimistic that the pilot studies effectively measured aspects of learning gain, and that aspects of learning gain could be effectively measured through existing data:

- Cognitive gain is best captured through existing attainment data.
- Soft skills and personal development are most efficiently captured through surveys.
- Work-readiness data is captured through careers registration.

The use of existing data to evaluate the effectiveness of ABL is discussed in the next section, in the context of Kandiko Howson's (2019) conclusions.

Using Public Metrics to Evaluate the Effectiveness of ABL

Kandiko Howson (2019) suggests that publicly available metrics and assessments for UK Higher Education are a valid and efficient source of evidence that could be examined in relation to learning gain. For example, the National Student Survey (NSS) is a major survey of final year UK undergraduate students, at the time of writing providing 15 years of data regarding students' perceptions of teaching, assessment and feedback, and other aspects of their university experience. If an institutional change to learning and teaching is a positive improvement, it might be assumed this would be reflected in relevant metrics, such as students' perceptions of their experience (as recorded in the NSS), the employment they find after university (as measured by graduate destinations surveys), and the improvements of specific measures (as the numbers of students successfully progressing each academic year), or the reduction in the gap in good degrees awarded to Black and Minority Ethnic and White students. The metrics already exist

and can be tracked over time, which are extremely useful properties despite the NSS and measures of graduate employment also having well-documented limitations.

The major public metrics for higher education have limitations. The example of PBL has already been discussed; it is highly effective on some measures, such as reduction of the attainment gap and maintaining currency, but does not consistently score well on measures of student perceptions. The survey of students' perceptions in the UK, the NSS, is a lagging metric, which provides prospective students with information about the experience of students who enrolled approximately 4 years previously. Graduate employment data lags even farther behind current university practice, as UK graduates are surveyed after the completion of their degree with a minimum period of six months (in the case of the Destinations of Leavers from Higher Education Survey, or DLHE, discontinued in 2018) or 18 months for Graduate Outcomes data, which has replaced the DLHE survey in the U.K. Furthermore, graduate destinations surveys cannot isolate the impact of university education from other variables which affect graduate outcomes, such as region, discipline studied, and gender (Cornell et al., 2020). This means that comparisons between institutions are unreliable. Benchmarking is sometimes introduced in national comparisons in an attempt to minimise the impact on metrics of variations not caused by the university.

In terms of publicly available metrics and ABL at the University of Northampton, it could be anticipated that successful learning and teaching practice which focuses on students' agency and builds their digital skills, teamwork, collaborative skills and their ability to problem solve, would positively impact on their graduate destinations. It would also be expected that the successful implementation of ABL would have a positive impact on student perceptions of teaching, assessment and other aspects of their experience, as measured in the NSS, although with some caveats. The most effective pedagogic models for promoting deep approaches to learning and developing high agency learners may be unwelcome to students who prefer structure and direction.

However, it is not a straightforward picture. The University of Northampton was highly successful in the national 2017 Teaching Excellence Framework exercise, gaining the highest possible rating. Since this was prior to the full implementation stage of ABL, there was no claim at the time of a direct link between the nationally benchmarked success and the introduction of ABL. On other widely used public metrics, such as the National Student Survey, progression and retention, graduate employment, and the degree awarding gap between White and Black and Minority Ethnic students, ABL does not positively differentiate the University of Northampton. Arguably it is still early days in terms of ABL impacting lagging metrics, such as the National Student Survey and graduate employment data.

While publicly available metrics for the University of Northampton do not currently provide a positive account of ABL, it is entirely possible that ABL will drive future improvements in the NSS and Graduate Outcomes data that become evident over the next few years. Other public metrics which might be used to evaluate the impact of ABL include the gap in degrees awarded to Black and Minority Ethnic students and White students. In common with other UK higher institutions, the University of Northampton awards a higher proportion of first class degrees and upper second class degrees (2:1s) to White students than Black and Minority Ethnic students. This gap has improved in recent years from c. 20% to c. 15% in common with the trend in the sector, but clearly there is further to go.

The lack of definite positive affirmation of ABL by key public metrics could be for reasons unrelated to the effectiveness of ABL. It could be a question of time, with a lag before the positive impact on students is reflected in the data captured and reported. It could be that the metrics are not the appropriate ones to determine the effectiveness of ABL. It may be that student perception is negative due to the

increased challenge, despite what will emerge to be positive educational outcomes on other measures, as has been documented in the case of initiatives such as Problem-Based Learning.

RECOMMENDATIONS FOR PRACTICE

Measuring success is a necessary step in improving and extending a process. As ABL is evaluated so university staff learn more about how to increase its pedagogic benefits. At the moment, there is no collective knowledge about whether there are some subjects for which ABL works better or less well. From a staff development and staff management perspective, it will be important to know whether ABL consistently makes a significant positive difference or whether it is co-dependent on other variables such as the enthusiasm of the tutor for the approach. Does ABL reduce attainment and progression gaps between groups of students, or increase them? Do staff prefer it or find it harder than other models? What kinds of staff development best support it? Should ABL affect academic staff recruitment, and if so how? Are there specific skills and attributes in staff who are successful at ABL? Is ABL static or does it change over time, and if so, what drives that change? As answers to these questions start to be proposed and discussed, it will be possible to implement ABL more effectively, to the benefit of students, staff, employers and society.

Numerous metrics are already available in relation to higher education. There is also a cost savings argument for utilizing existing data rather than incurring the expense of collecting new data, despite the limitations of that existing data, which may be strongly influenced by factors outside the control of universities (presage factors), or may be lagging. Gibbs (2010) and Kandiko Howson (2019) both express scepticism of the value of using these metrics to compare institutions. However, they provide data which allows institutions to benchmark themselves against similar institutions and to evaluate progress over time, and these are useful for identifying areas where improvement is needed (as in the attainment gap), and charting progress.

It is therefore suggested that the optimum approach will use a combination of public domain metrics as longitudinal summative measures, which allow for some external benchmarking, combined with small scale case studies, which develop the engagement of staff with the public metrics as a source of data, and encourage staff to experiment, question and sharing practice, and to seek and measure year-on-year improvements at a local (disciplinary and modular) level.

From a perspective of enhancement, local, small scale case studies must be encouraged. They develop professional understanding and communities of practice. ABL is not a single phenomenon but a continuum of approaches, combined differently in different subject areas. This is not an inherent weakness of ABL by any means, but a reality of the way education works, as it adapts for the multiple variables of discipline, group size, available resources, students' prior experience and attainment. Large scale studies and public metrics will not do justice to the variation which exists for valid educational reasons. Small scale case studies on the other hand can accommodate that variation and still drive improvement. The potential weakness of such case studies is that they can exist in isolation, without context and without a community to challenge and support the evolution of ideas. Public metrics can provide benchmarking and context for the small scale studies. Academic staff can use public metrics to identify whether a module has lower than expected pass rate for all students or some students (e.g., Black and Minority Ethnic students), and respond with trying different approaches which they can set their own measures of success for and share with colleagues and the international community of educators.

Good research questions for action research and other small research projects are easy to generate. Examples include asking staff whether they are adopting Active Blended Learning and if so, how is it different to what they were doing previously; whether it is different from how they themselves were taught and how their discipline is taught elsewhere to their knowledge; what do staff see as the benefits, and how do they quantify or measure these. Just as easily, small scale research projects can ask students whether they perceive themselves to be taught by ABL, some or all of the time, and to explain their perceptions of the pros and cons. If long term relationships could be established between students and research teams, students might be willing to participate in a post-graduation study to reflect on their education 6 or 12 months after graduating. The ability of staff to articulate their pedagogic practice, whether and how it improves on previous practice, and how they perceive the benefits, can be itself the basis of further enquiry, with triangulation with students' accounts. These explorations are inherently a process of professional development and of enhancement. All of these studies would be developmental for the staff conducting them, give rise to incremental improvements, and increase institutional and if published or shared through conferences, international understanding of ABL.

CONCLUSION

Evaluation is difficult. Nevertheless, the responsible and professional reaction to trying out something new is to ask: Did it work? How did it work? Is it possible to maintain the initial positive effect when the initiative is repeated? Can it be improved when it is repeated? Can it be shared, in order to help other educators and other students? These questions should be built into institutional change initiatives from the outset based on articulation of what 'success' or 'good' will look like.

The University of Northampton aimed to build a campus, which encouraged small group teaching, engaging students through activities, assessment that tests application of knowledge rather than its recall, online activities which foster a greater range of skills than reading or listening to a resource, and which discouraged long monologic lectures from academic staff. For each of these approaches, there is supporting literature based in psychological studies of how people learn. The pedagogic rationale for the components of ABL is robust. However, a number of important unknowns exist. There is no published evidence of the extent to which ABL is adopted consistently within the university, or how assessment practices test the areas it is claimed ABL develops, such as team work, applied knowledge and skills, confidence and digital literacy. There is no evidence that ABL contributes positively to graduate employability. The major student perception survey, the National Student Survey does not present a strongly positive endorsement. In terms of the effect of ABL to reduce demographic gaps in outcomes, there is no positive evidence.

This chapter advocates that it is a responsibility of universities to establish appropriate institutional evaluations of its learning and teaching. This could include audits that investigate the extent to which approaches are adopted consistently, for example by reviewing assessment briefs across a range of disciplines for the extent they prioritise application and problem solving over recall, or which reviews online course sites for use as 'filing cabinets for resources' versus 'active, engaged communities'. It should be part of the way in which students' experience is surveyed, the extent to which they perceive themselves to learn using ABL, and their perception of its effectiveness. Existing institutional work to monitor and reduce the awarding gap, as required by national regulation in the England, must be incorporated into

ABL to improve the proportion of better academic awards made to Black and Minority Ethnic students. The contribution of ABL to graduate employment or graduate level study needs to be understood.

Institutionally we need to understand the impact of ABL, and how we can improve it and build on it. An important foundation for this is individual staff being curious about their own teaching and wanting to improve it, finding challenges and solutions, documenting these, and sharing their findings. Therefore individual case studies and action research need to be encouraged. The specificity of different learning and teaching situations that makes them difficult to compare is not inconvenient 'noise' but fundamental to learning and teaching. Qualitative case studies should be considered alongside and as complementary to quantitative data sets and metrics.

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