

## “Flexible Learning” Program of Research – Scope FAQ

### What is the FLEX PoR?

Similar to the START Program of Research, the FLEX-PoR is established to allow flexible learning researchers to have access to student data that WSU routinely collects and, following de-identification, report findings in the form of research outputs (journals, conferences, etc.). It has the same Chief Investigator, Professor Simon Bedford, Pro Vice-Chancellor (Learning Futures), and uses the same opt-out mechanism for student consent.

The Flexible Learning Experience Program of Research (FLEX-PoR) is approved by the Western Sydney University’s Human Research Ethics Committee (HREC xxxxx approval date). The approval functions as an “umbrella” approval to allow an open cohort of WSU academics to design research subprojects which can be submitted as amendments the FLEX-PoR ethics application.

### Why a Flexible Learning program of research?

The rapid wholesale shift to online learning at WSU and other universities in response to COVID-19 was accompanied by known and unknown risks and opportunities in relation to both curriculum and teaching quality. In support of WSU’s Flexible Learning Strategy, a university-wide review of data related to student learning and modes of delivery was undertaken in 2021. The ‘*Flexible Learning – HyFlex Review*’ recommended:

*“that Hyflex@WSU is continued to be investigated as part of a university wide Flexible Learning Strategy, including the provision of additional timetable support to capture student movement between HyFlex delivery modes, evidenced based evaluation of student impact and to undertake further review of requirements and experiences of students and staff.” (Senate Education Committee item 2.3, 14 October 2021)*

Under the HyFlex model of learning that is gradually being adopted at WSU, students can choose their own level of on-campus and online learning according to their own preferences. The literature on flexible learning suggests that its effectiveness in terms of student experience and learning outcomes depends greatly on how well learning activities are adapted to this mode of learning.

### What subprojects are envisaged?

The FLEX-PoR broad research questions are:

1. What are the relationships between flexible learning, retention, and student success?
2. In what ways and to what extent do flexible learning strategies impact student success?

There are myriad opportunities for research in this relatively new field, with direct application to WSU and higher education generally. In addition to pedagogical effectiveness, the relationship between flexible learning, academic literacy, retention, employability, implications for student mental health and support, and attractiveness of the university as a study destination have yet to be rigorously explored.

Research conducted under the FLEX-PoR will be utilised to better inform and test WSU’s theoretical analysis of its institutional vision, to draw more accurate conclusions concerning its transition, progression and retention initiatives. Consequently, FLEX-PoR subprojects need to demonstrate intended outcomes directly improving learning outcomes and experiences for WSU students.

The FLEX-PoR is open to a range of research questions that are intended to contribute substantive, methodological and theoretical/conceptual knowledge. It is envisaged that most subprojects will be oriented to practice-based, substantive outcomes; however methodological and conceptual investigations are needed and welcome.

The focus of the FLEX-PoR is investigating *flexible learning* and concepts relevant to student learning and success: retention (e.g., retention for further study, or retained to WSU although change course), engagement, experience, and graduate outcomes.

The HyFlex Review (2021) identified the following themes from WSU students' and staff responses which can be further investigated:

- Faculty interaction and validation (mattering; proactive best)
- Learning community (belonging)
- Curriculum design and pedagogical interventions) - (active learning design; collaborative learning activities to enhance learning communities and student belonging)
- Non-academic support (e.g., financial)
- Learning analytics (to detect and action; prediction to guide faculty proactive interaction; early engagement in assessment – therefore curriculum design).

The document **FLEX-PoR subproject – Suggested research questions.pdf** is available to support development of subprojects that align with WSU priorities.

## What data is available for FLEX PoR subprojects?

The FLEX-PoR will include the following data sources to conduct the various subprojects. Indicative research questions are included.

### *Relevant de-identified vUWS analytics data*

Examples include: vUWS accesses and vUWS interactions. This data can be used to address the following indicative questions.

- What are the patterns of student interaction with vUWS?
- What can we infer from patterns of student interaction with vUWS?
- How can insights from the description of student interaction with vUWS complement insights from qualitative analysis?

### *Other relevant de-identified analytics data*

Examples include Google analytics, Panopto analytics, analytics from other packages used by teachers or the digital futures team. This data will be used to address the following indicative questions.

- How can this data be integrated with vUWS data to provide a description of student patterns of behaviour in relation to flexible learning provisions?
- How can this analytics data inform the analysis of student engagement, retention and success?

### *Relevant de-identified student grades*

Student grade data that is required is likely to be historical and current. The justification for accessing historical data is because comparisons between various iterations of vUWS sites are likely to be made

and the comparison of student outcomes (grades) is likely to be a focus of interest. The access to current student grades is required because analysis related to the various sub-projects is likely to require ongoing analysis of student learning outcomes (grades).

Some indicative questions based on the use of student grades include the following.

- How do flexible arrangements for formative learning activities contribute to student learning outcomes at various stages of a student's progress through a unit?
- Does student behaviour in flexible learning environments correlate with student learning outcomes (grades)?
- Is student behaviour in flexible learning environments a predictor of student learning outcomes (grades)?

#### *Relevant de-identified student SFU data (questionnaire and comments)*

SFU feedback is an important source of data to explore student views on their learning experiences in units. Indicative questions that relate to the use of SFU data include the following.

- How can the interpretation of SFU textual data inform the analysis of student learning experiences in flexible learning environments?
- How can SFU questionnaire data inform the exploration of student learning experiences in flexible environments?

#### *Relevant de-identified staff data from questionnaires, interviews or focus groups (questionnaire and comments)*

The perspectives of the teaching staff can provide insights related to the challenges of teaching in flexible learning environments. Some indicative questions include the following.

- What are some of the challenges that students encounter in terms of their learning in flexible learning environments?
- What are some of the challenges staff face in teaching in flexible learning environments?

#### *Other data sources (e.g., video, observational data)*

There may be other forms of data such as video or observational data that may be used in sub-projects. Indicative questions include the following.

- How do students engage with curriculum in and across flexible learning environments?
- How do students interact and communicate with their peers in and across flexible learning environments?

The identity of individual participants will be sought prior to any recording of student activity.

#### *Student questionnaires*

Student questionnaires that are associated with sub-projects may be designed by researchers interested in exploring a particular area of learning behaviour or experiences. These questionnaires may be text-based or online. Areas of interest might include the following.

- What is the nature of student learning behaviour in and across flexible learning environments?
- What is the student experience of learning in flipped classrooms?
- Which aspects of flexible learning environments can be improved?

The analysis of questionnaire data may also be used in the construction of interview schedules and focus group questions.

### *Interviews and focus groups*

Focus groups and interviews will provide qualitative data that will be used to provide interpretive depth to quantitative findings. Various interview forms may be used (structured, semi-structured, unstructured) depending on the research aims of the researcher. The *n* is hard to predict given that the aims of the sub-projects are likely to be significantly different. Some indicative areas of interest that interviews and focus groups might cover are outlined.

- What are some of the challenges that students face in the transition from high school learning environments to a self-directed learning environment?
- In what way do students learn from their peers?
- What role does flexible learning play in student learning?

The data in all these data sets will not be traced back to individual participants but it is best practice to communicate the themes to participants prior to the publication of themes in reports or journal articles. If individual researchers are interested in considering member checking as a data validation strategy, these requests will be reviewed on a case-by-case basis.

## What criteria are used for subprojects to be accepted into the FLEX PoR?

A subproject can only be submitted to the HREC as an amendment to the FLEX PoR after vetting by the FLEX-PoR research team to determine whether the research and the data requested is appropriate and within scope of the FLEX-PoR. Only subprojects deemed low-risk will be submitted to the Human Ethics Low-Risk Committee.

The FLEX PoR research team will also consider whether the research objectives and intended outcomes are designed to inform improving student learning and experience. Specifically, subprojects under the FLEX-PoR ethics approval will need to demonstrate alignment with the WSU “Sustaining Success 2021-2026” strategic plan.

- Enabler 3. Learning and Teaching
- Enabler 4. Student Experience
- Principle 3.1 Transformation: Deliver transformative education and student experiences through innovative applied curricula, and proactive, customised engagement.
- Principal 4.1 Connectedness: Through enhanced use of technology, align structures, curriculum, research, student & staff experiences to our mission & values to establish partnerships & collaborative projects with communities that build capability & transform regions.

Subprojects will also be assessed for the level of impact, using the IMPEL model ([IMPEL-Designing-for-impact-Resources-and-information.pdf \(ecu.edu.au\)](https://www.ecu.edu.au/impact-Resources-and-information.pdf)). While many projects will initially apply quite narrowly to team members and their immediate students, it is highly desirable to plan for higher levels of impact within WSU, including the scope of adoption to include courses, disciplines, faculties and

university-wide across WSU. Subprojects should be designed to facilitate adoption, including a dissemination plan.

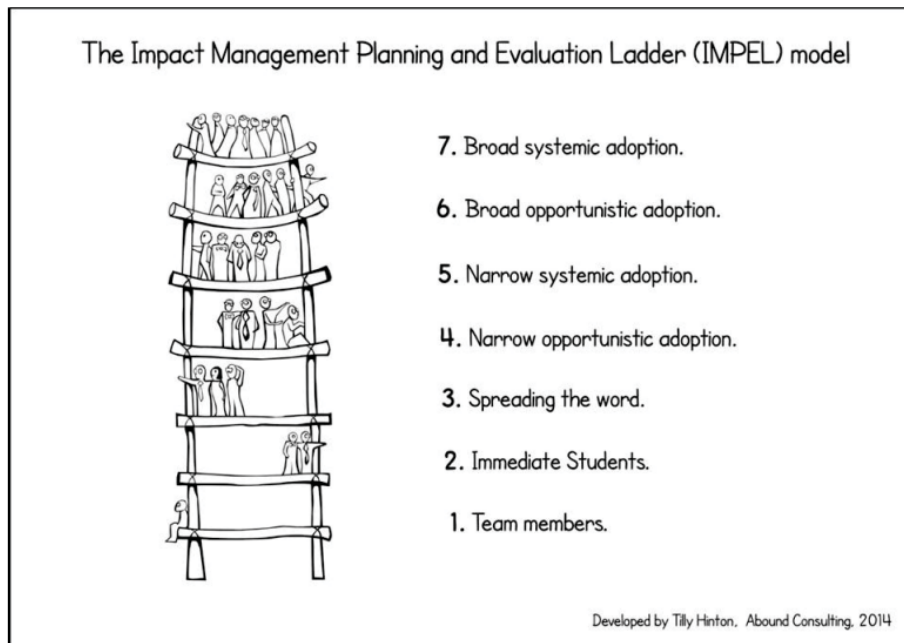


Figure 1. The Impact Management Planning and Evaluation Ladder (IMPEL) model

## What are the expected impacts of the FLEX PoR and its subprojects?

### *Flexible curriculum and teaching practice*

The outcomes of the FLEX-PoR will inform the design and implementation of targeted strategies to support flexible learning at WSU. They will contribute to a comprehensive understanding of flexible learning experience from the perspectives of staff and students. This includes exploration of a range of factors such as timing and choice of learning activities, teaching practices, relationship between discipline and teaching methods, students' academic skills, personal attributes, academic progression, engagement, demographics, and backgrounds. Suggested considerations include:

- curriculum design, student support, modality, and student choice(s)
- issues of measuring activity, engagement/participation,
- Timetabling data (to activity level)
- Zoom data (participation)
- Individual student experience and opinion (difficult).

### *WSU staff capability development*

Findings of research projects will also inform professional development of staff at WSU to, for example, ensure that HyFlex modes of curriculum delivery and assessment are effective and fair. Project members will be provided opportunities to disseminate their findings within WSU (e.g., Research Week or community of practice presentations, course leaders' forums, online and face-to-face workshops, school-based events, and high impact case studies to guide decision-making at WSU).

### *Scholarship of Teaching practice*

It is anticipated that the FLEX overarching Program of Research and associated subprojects will facilitate WSU academics to engage in scholarship of teaching and disseminate their findings to the broader WSU community and higher education sector. Through engaging in FLEX-PoR subprojects, either as researchers or participants, WSU staff will be able to develop high-quality evaluation of teaching methods and learning practices and identify their relationships with student experience and academic outcomes. Over time, it is envisaged that staff capability in scholarly practice applied to their teaching will increase in depth and rigor; that measuring the impact of any intervention intended to improve students' learning and experience of university will be routine and normative.

FLEX-PoR research subprojects with the following characteristics will have broader relevance and generalisability:

- Holistic approach to measuring impact of evaluations
- Identify and measure individual factors that impact outcomes for specific interventions
- Longitudinal data collection
- Multi-institutional collaboration and data collection.

### What resources are available to support sub-project design?

#### *Baduglang mentoring*

Baduglang Fellows are available to support staff to

- Conceptualise and justify a sub-project
- Identify and apply research methods appropriate to the research questions
  - data collection and data analysis
  - Interpretation and discussion
  - Recommendations, limitations and future research
- Review findings and identify future research
- Offer collaboration through a Teaching and Learning group

Baduglang also runs workshops on evidencing teaching and learning impact, writing, good practice in flexible learning, and other topics, and provides a range of asynchronous learning modules

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#### *Suggested research questions*

The document **FLEX-PoR subproject – Suggested research questions.pdf** is available to support development of subprojects that align with WSU priorities.

#### *Literature review of flexible learning*

A small-scale literature review prepared by the central learning and teaching unit is available to support the conceptualisation and design of sub-projects (see [Flexible Learning Literature Review](#): Western staff have access).

Subproject teams should take into account the [Advance HE integrative literature review on Flexible Learning within Higher Education \(2016-2021\)](#) and consider the implications of the review for their research design, interpretation, and suggested application of results. The review:

- Reports in-depth analysis of 105 Higher Education (HE) research articles published 2016-2021.
- Details research undertaken across the world, using quantitative, qualitative and mixed methods and includes a few conceptual articles.
- Identifies and summarises **flexible learning trends, issues and impact**, including specific impact and evidence compassing:
  - policy and/or practice with evidence of impact on student outcomes (student performance, progression, engagement, satisfaction, skill acquisition and/or self-confidence).
  - impact of emergent technologies
  - adapting and evaluating innovative teaching and assessment practices
  - workforce development and policy review
  - intersections with employment and employability
  - enablers of flexible learning.