Higher Education Learning Framework Matrix
An evidence-informed model for university learning

The Higher Education Learning Framework (HELF) is a research project of the Science of Learning Research Centre (SLRC), a Special Research Initiative of the Australian Research Council.

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HIGHER EDUCATION LEARNING FRAMEWORK (HELF) PROJECT

BACKGROUND

This project aimed to develop an evidence-informed model for university learning in the form of a Higher Education Learning Framework. This was achieved through a synthesis of existing frameworks, literature, and research on the topic along with a set of national and international expert interviews offering the latest thinking on university learning. This framework has been developed through a Science of Learning lens that threads together the often-disparate thinking in education, neuroscience, and psychology to offer a convergent framework on effective learning in higher education that can broadly guide the higher education sector.

The HELF Matrix is a 1-page overview outlining the Teacher, Student, and Assessment implications of the HELF Principles.

Seven HELF Principles have been proposed:

1. ‘A university education provides a learning experience that broadens students knowing and being for life beyond the classroom’
2. ‘Learning occurs in context, and context can be used to enhance the learning experience’
3. ‘Emotions play a role in how and why students learn’
4. ‘Leverage the social dynamics of learning to enhance the learning experience’
5. ‘Challenge and difficulty can be beneficial for students’ learning process’
6. ‘When students employ effective methods of thinking, and understand how they learn, they can improve the way they learn’
7. ‘Learning is built on prior knowledge and engages students in deep and meaningful thinking and feeling’

NOTES

• The principles are not prescriptive but merely suggestive, depending on the appropriate learning/teaching conditions. For instance, a high-quality learning experience does not require all the principles to be addressed.

• The order of presentation of the principles is not intended to be sequential or hierarchical.

• As to be expected, all the principles have some degree of inter-relatedness due to the inherent nature of learning itself.
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A university education provides a learning experience that broadens students’ knowledge and being for life beyond the classroom.

**HIGHER EDUCATION LEARNING FRAMEWORK**

**IMPLICATIONS FOR TEACHERS**

- **Consider** students’ future career paths and the time at university as an integrated experience, preparing your teaching towards their and their learning experiences not as separate activities.
- **Explore** with students how understanding a course or degree program can influence their self-identity, and encourage students to be open to exploring how impacts upon their self-concept are influenced by both the student and the learning environment.
- **Discuss** with students how the broader contexts of community and society influence a student and how they can influence community and society.
- **Explore** with students their experience of learning, and how this can influence learning and community throughout your teaching.

**IMPLICATIONS FOR STUDENTS**

- **Avoid** misalignment between what students experience as an absolute course of knowledge, but rather approach learning as facilities of knowledge. How learning is experienced and valued is influenced by students and the pedagogic knowledge afforded between and develop your own epistemology around that discipline knowledge.
- **Recognise** the different levels of context and community and influence what you have been learning, and how you can influence community and society through your learning.
- **Explore** your learning as an opportunity for you to explore how that influences your beliefs, perceptions, social interactions, and behaviors, inside and outside of the classroom.

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**Learning occurs in context, and context can be used to enhance the learning experience**

**Emotions play a role in how and why students learn**

- **Promote** a learning environment that encourages a sense of challenge and stretch, and foster positive and enjoyable learning environment.
- **Establish** a quality relationship with students focusing on the meaning derived from students’ engagement with a lecture, not just the quantity of time spent with a lecturer.
- **Help** students access personal reflection on their thinking during the learning experience, and work together to create that learning experience.
- **Encourage** students to develop self-motivation by having them set and review mastery-related goals.

**Leverage the social dynamics of learning to enhance the learning experience**

- **Prerogatives** allow students to advice effectively in an enjoyable way by exploring their written and verbal communication skills.
- **Self-reflect** upon how social interactions enrich the diversity of perspectives you can expect, and how this impacts your learning and in terms of expanding your conceptual frameworks, ways of thinking, and collaborative outcomes.
- **Engage** students in a series of staggered informal, or low stakes, peer evaluations.
- **Foster** your interest and curiosity in learning by being externally focused, identifying weaknesses and realizing in learning content.

**When students employ effective methods of thinking, and understand how they learn, they can improve the way they learn**

- **Assist** students in their methods of thinking with respect to the analysis and synthesis of learning content and processes, as well as providing guidance to reach this. You can help students decompress, explore, apprehend, and reconstruct problems in both accurate and incomplete/incorrect ways.
- **Challenge** students to develop more adequate information awareness about their learning, and thereby, to exercise more effective metacognitive regulatory actions. This helps to improve students’ ability to self-regulate their learning.
- **Strategically** use the myriad of tasks related to higher-order thinking skills when teaching and assessing students, and moreover, rapidly teach students what they might use in the future.
- **Encourage** students to be able to make evaluative judgments about their own capabilities or performance at any stage of learning (formal assessment).

**Challenge and difficulty can be beneficial to learning**

- **Provide** learning content and activities that are sufficiently challenging to allow the learning mechanisms of challenge/difficulty to adequately operate, and the students have sufficient learning opportunities to practice and experience it (at least for those that are thinking).
- **Experiment** with, and provide support for, structured learning experiences, understandability in learning content, and problem-based learning scenarios to facilitate the exploration of student understanding and development.
- **Consider** the need of motivated students (those students who are motivated and might eventually become self-motivated students) to develop their own learning mechanisms as a result of these experiences.
- **Facilitate** students to become more aware at dealing with, self-regulating, the curricular and failure that can occur when experiencing learning challenges and difficulties.

**Learning is built on an understanding of prior knowledge and engages students in deep and meaningful thinking and feeling**

- **Recognize** the need to support students who have sufficient prior knowledge to engage in the kinds of learning activities and outcomes expected.
- **Provide** opportunities for students to build on their prior knowledge and explore the kinds of learning activities and outcomes expected.
- **Engage** students in meaningful and engaging activities that support problem-solving, and encourage them to think beyond their disciplinary boundaries.
- **Use** student learning experiences to explore the complexity of concepts and the relationship between concepts, or at least don’t stray away from it.