

4C Transformative Learning

The following is edited excerpts from *Transforming Education* (Jefferson and Anderson, 2021).

The Learning Disposition Wheel

The Learning Disposition Wheel describes innate capacities that can be developed and fostered for self-direction in learning, wellbeing and agency.

Deep learning and the Learning Disposition Wheel

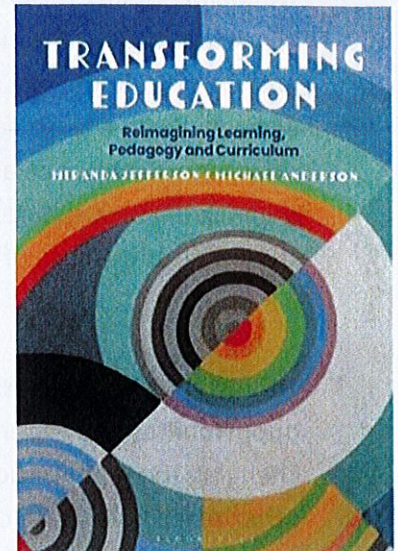
Deeper learning is the ability to make connections and transfer skills and understandings

from one context to another. The National Research Council Report *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century* argues that if the goal is to prepare students for success in solving new problems and adapting to new situations in the twenty-first century, then deeper learning is called for.

The Learning Disposition Wheel, based on research from the National Research Council's report, describes the skills that can foster deeper, transferable learning. The Learning Disposition Wheel provides teachers and students with a common language or metalanguage necessary for developing metacognition for deeper learning and agency building. Metacognition in learning plays a central role in students' ability to transfer their learning to solve new problems and learn new things. The Learning Disposition Wheel is represented as a circle to illustrate the interconnectedness and reliance each disposition has to the other. The 4C capabilities are also evident in the Learning Disposition Wheel: creativity is *build new ideas*, critical reflection is *think why and how*, communication is *make and express meaning*, and collaboration is *teamwork*.

Self-Determination Theory, deep learning and agency

Self-Determination Theory, developed by psychology researchers, Edward Deci and Richard Ryan in the 1990s, is a macro-theory that details the origins and outcomes of human agency. The theory assumes that human behaviour is inherently growth-oriented and proactive, and that people at their best are curious, self-motivated and striving to learn and extend themselves. In contrast to this, human behaviours can be passive, apathetic, alienated and irresponsible. The theory explains that these behaviours are determined by whether certain human fundamental psychological needs are supported or diminished by the social environment around them. The three basic psychological needs that support agency and wellbeing in Self-Determination Theory are – competence, autonomy and relatedness.



All three needs must be developed together for students to flourish in their learning and wellbeing. Failing to support competence, autonomy and relatedness contributes to apathy, alienation and ill-being in students. If educators create a learning environment that supports the growth of competence, autonomy and relatedness, students are energised and engaged to achieve positive learning outcomes. We argue that developing competence, autonomy and relatedness cannot be an 'add on' or 'bolt on' program to current pedagogy, curriculum and organizational structures in education. Supporting competence, autonomy and relatedness should be at the core of all teaching and learning, underpinning the nature of pedagogy and curriculum.

For instance, *relatedness* and feelings of belonging are developed in students if teachers have opportunities and experiences to connect with and know their students. This may mean changing the organizational structure of the school so teachers can teach collaboratively with other teachers in classrooms to better know their students. Teaching across students' learning experiences also allows teachers to know their students better, as does developing opportunities and capacities for student voice.

To develop *autonomy* and self-direction, students need to pursue activities that engage them, or tasks that offer novelty, challenge or aesthetic value. To facilitate or enable this, pedagogy and curriculum have to be flexible and adaptive to meet student needs, passions and contexts.

Students' feelings of *competence* and self-worth must be supported by pedagogy that fosters intrinsic motivation. Intrinsic motivation is the capacity to exercise and extend yourself by seeking out novelty and challenge. 'Command and control pedagogy' ('I will tell you what to know and do') undermines the development of intrinsic motivation in students. Pedagogy that facilitates deep noticing, questioning and positive feedback enhances students' feelings of competence and intrinsic motivation to learn. Feedback that makes students feel incompetent (for example, 'you received 6 out of 10' ... 'you need to do better' ... 'you should have noticed' ...) diminishes their feelings of competence and intrinsic motivation.

Evident in the Learning Disposition Wheel is the connection with the basic psychological needs of Self-Determination Theory.

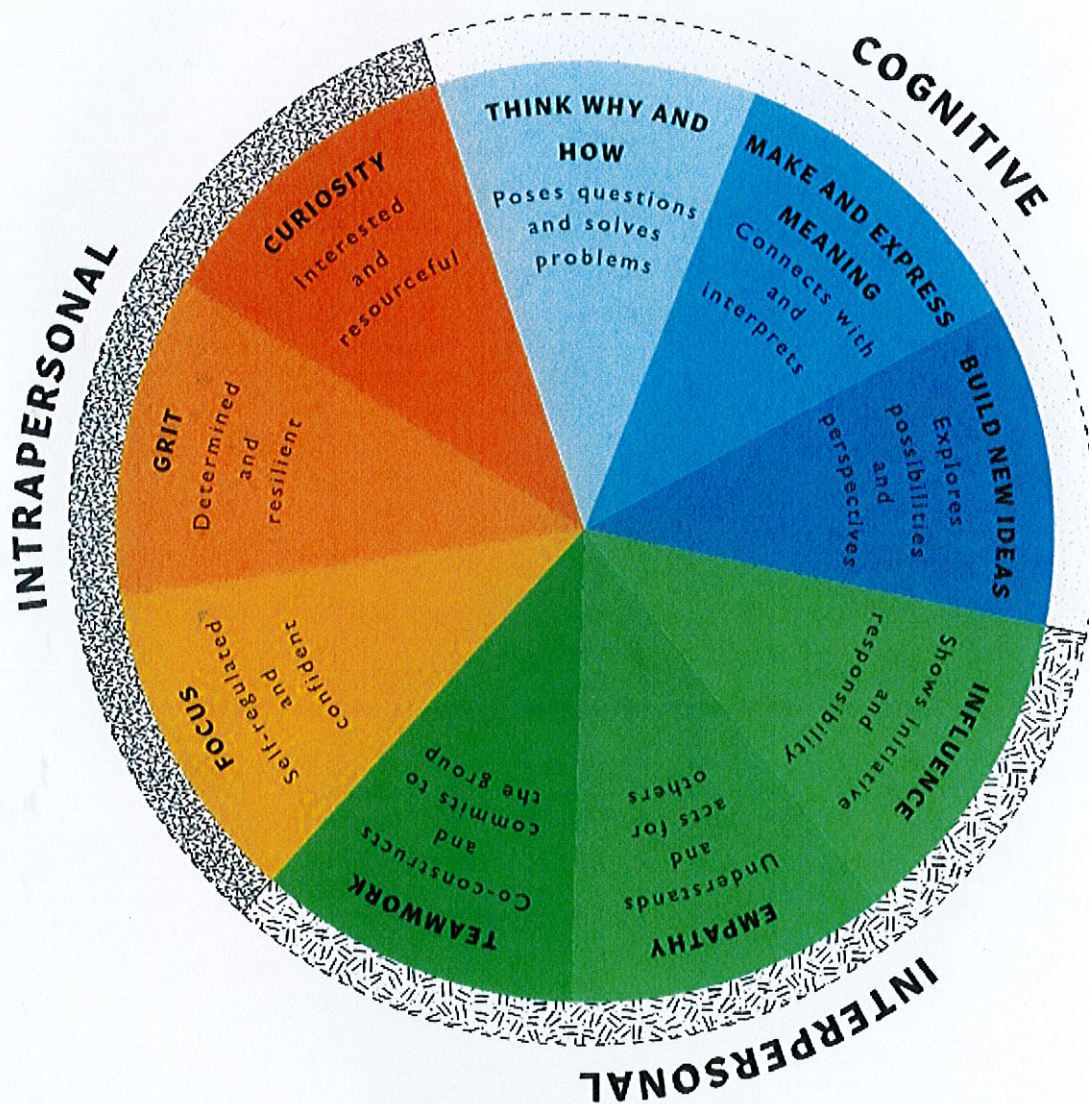
- The cognitive skills (*think why and how, make and express meaning, build new ideas*) support *competence*
- The intrapersonal skills (*focus, grit, curiosity*) support *autonomy*,
- The interpersonal skills (*influence, empathy, teamwork*) support *relatedness*,

Together they support the development of agency.

How is the Learning Disposition Wheel used?

The Learning Disposition Wheel is used as a diagnostic, feedback, reporting and evaluation tool where teachers can deeply notice and analyse the strengths and yet to be strengths of learners as a classroom cohort or as individuals.

The Wheel is also a metacognitive device that is used to explicitly teach and learn the skills of self-regulated learning and agency. The teaching and learning of these skills is best accomplished as embodied experiences when integrated with curriculum learning. Teachers and students can identify, target, experience, practise and assess the skills in the Learning Disposition Wheel through strategies that build strengths and yet-to-be strengths in their learning. Metacognition using the Learning Disposition also develops in learners a positive belief in being able to learn.



Excerpted from Jefferson, M. & Anderson, M. (2021) *Transforming Education*. Sydney: Bloomsbury, pp. 57 – 71.