

White paper

Evaluative Thinking

Creable promotes a wide and diverse evidence base and has developed a skills framework to explore and embed skills that are pertinent to the changing future landscape. This article will explore what evaluation looks like in different contexts in order to demonstrate its applicability and relevance to everyday learning, professional practice, and the future of work.

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What is it?

Evaluative thinking is increasingly recognised as a critical skill for the future of work. However, the ability to meaningfully discuss, promote, teach, measure, and research evaluative thinking is limited by the absence of a widely agreed upon definition. Creable is drawing on existing research to explore evaluation in different contexts and highlight the shared value of evaluative thinking across education and industry settings.

As a starting point, evaluation is deciding what makes something a something, deciding how to know that something is good, and then deciding how good a specific something is.¹

An example of an evaluation in a school context may be

Defining what a program is

(deciding what makes something a something)



Creating a criteria or rubric that outlines the characteristics of a program implemented to varying degrees of success

(deciding how to know that something is good)



Using the criteria to assess a specific program

(deciding how good a specific something is)

Evaluation has traditionally been confined to formal work conducted by evaluation professionals, who define evaluation as the generation of a credible and systemic determination of merit, worth, and/or significance of an object through the application of defensible criteria and standards to demonstrably relevant empirical evidence.² However, trends in both industry and education designate evaluation as a shared responsibility. Thus skills like evaluative thinking, central to the discipline of evaluation, is becoming a universally relevant skill.

¹ Gullickson, A. M. (2020). The whole elephant: Defining evaluation. *Evaluation and Program Planning*, 79, 101787. <https://doi.org/10.1016/j.evalprogplan.2020.101787>

² Gullickson, A. M. (2020). The whole elephant: Defining evaluation. *Evaluation and Program Planning*, 79, 101787. <https://doi.org/10.1016/j.evalprogplan.2020.101787>

Through another lens, evaluative thinking is critical thinking applied to contexts of evaluation.³ This looks like consistent questioning, reflecting, learning, and modifying.⁴ In practice, it involves asking questions of substance, determining what data are required to answer specific questions, collecting data using appropriate strategies, analysing collected data and summarising findings, and using the findings.⁵ Skills of this nature are pertinent to develop in educators and students alike. This article will explore what evaluation looks like in different contexts in order to demonstrate its applicability and relevance to everyday learning, professional practice, and the future of work.



EVALUATIVE PROCESS FROM CREATABLE'S COURSE: NURTURING EVALUATIVE STUDENTS

³ Buckley, J., Archibald, T., Hargraves, M., & Trochim, W. M. (2015). Defining and Teaching Evaluative Thinking. *American Journal of Evaluation*, 36(3), 375–388. <https://doi.org/10.1177/1098214015581706>

⁴ Bennett, G., & Jessani, N. (Eds.) (2011). *The knowledge translation toolkit: Bridging the know-do gap: A resource for researchers*. SAGE Publications India Pvt Ltd, <https://dx.doi.org/10.4135/9789351507765>

⁵ Baker, A., & Bruner, B. (2012). *Integrating evaluative capacity into organizational practice*. Cambridge, MA: The Bruner Foundation. Retrieved from http://www.evaluativethinking.org/docs/Integ_Eval_Capacity_Final.pdf

Why is it relevant to teachers and schools?

For evaluation to be successful, it is necessary to infuse it throughout the entirety of an organisation, including its work processes and all of its people.^{6 7 8 9 10 11} Evaluating strategic directions or school projects draw on similar processes to assessing student performance or recruiting a new member of staff. Thus embedding evaluation into the systems and processes of schools and the professional practice of teachers is viable and necessary for impactful education.

Evaluation involves interpreting or giving meaning to predicted or real impacts of results. In essence, answering three questions:

What was accomplished?

How was it accomplished?

Was the intended outcome met?

⁶ Baker, A., & Bruner, B. (2012). Integrating evaluative capacity into organizational practice. Cambridge, MA: The Bruner Foundation. Retrieved from http://www.evaluativethinking.org/docs/Integ_Eval_Capacity_Final.pdf

⁷ Bennett, G., & Jessani, N. (Eds.) (2011). The knowledge translation toolkit: Bridging the know-do gap: A resource for researchers. SAGE Publications India Pvt Ltd, <https://dx.doi.org/10.4135/9789351507765>

⁸ Carden, F., & Earl, S. (2007). Infusing evaluative thinking as process use: The case of the International Development Research Centre (IDRC). *New Directions for Evaluation*, 2007(116), 61–73. <https://doi.org/10.1002/ev.243>

⁹ King, J. A. (2007). Developing evaluation capacity through process use. *New Directions for Evaluation*, 2007(116), 45–59. <https://doi.org/10.1002/ev.242>

¹⁰ Patton, M. Q. (2005). In conversation: Michael Quinn Patton. Interview with Lisa Waldick, from the International Development Research Center. Retrieved from http://www.idrc.ca/en/ev-30442-201-1-DO_TOPIC.html

¹¹ Taut, S. (2007). Studying Self-Evaluation Capacity Building in a Large International Development Organization. *American Journal of Evaluation*, 28(1), 45–59. <https://doi.org/10.1177/1098214006296430>

In a complex and changing environment, schools have a vested interest in how time, energy, and resources are allocated. A school which is highly evaluative in their systems, processes, and people is well positioned to provide consistent, impactful education. As an example, schools that evaluate whether programs, interventions, or initiatives are having the intended effect are able to course correct in a timely manner, and reallocate resources to reach outcomes more effectively.

An evaluative school also has systems in place to collect student data for analysis and reporting; incorporate relevant emerging evidence into professional practice; and align on new or changing requirements in areas such as curriculum and accreditation. These systems enable a school to meet strategic priorities, adapt to change, and provide students with impactful education in times of uncertainty.

School leaders aim to develop a culture of continuous improvement, trust, and collaboration, where change and innovation based on research and evidence can flourish. Evaluative thinking can feel challenging or even threatening, so this type of environment is important when building evaluative capacity in teachers. Deliberate, transparent, and supportive evaluative thinking in groups can strengthen evaluative practice both in schools and individuals.

"Deliberate, transparent, and supportive evaluative thinking in groups can strengthen evaluative practice both in schools and individuals."

People will then feel comfortable to look at themselves more critically through disciplined processes of systematic inquiry¹² and strive to utilise the results of these observations and inquiries¹³ even regarding their own professional practice. An evaluative teacher has an attitude of inquisitiveness and a belief in the value of evidence.¹⁴ They reflect on their assumptions, have a desire to understand, and are committed to evolving their professional practice. Consideration for school environments is a pivotal first step in building this kind of evaluative capacity in teachers.

Advanced evaluation practices exist when school systems, processes, and people implement evaluation in tandem. Pitfalls can occur when evaluation practices exist in some areas and not others. For example, evaluative processes within a school may be impeded by limitations in teacher ability in areas such as data literacy. Similarly, evaluative teachers may be limited in their ability to effect change and evolve their professional practice if a school lacks a culture of continuous improvement. Thus to be most effective, evaluation must be implemented at all levels within a school system.

"Advanced evaluation practices exist when school systems, processes, and people implement evaluation in tandem."

¹² Preskill, H. & Boyle, S. (2008). Insights into evaluation capacity building: Motivations, strategies, outcomes, and lessons learned. *Canadian Journal of Program Evaluation*. 23. 147–174.

¹³ Volkov, B. B. (2011). Beyond being an evaluator: The multiplicity of roles of the internal evaluator. *New Directions for Evaluation*, 2011(132), 25–42.
<https://doi.org/10.1002/ev.394>

¹⁴ Buckley, J., Archibald, T., Hargraves, M., & Trochim, W. M. (2015). Defining and Teaching Evaluative Thinking. *American Journal of Evaluation*, 36(3), 375–388.
<https://doi.org/10.1177/1098214015581706>

Why is it relevant to students?

Students are constantly exposed to new information, and reconcile that information with their existing schemas and views of the world. As evaluative thinking is critical thinking applied to contexts of evaluation¹⁵, it is imperative to determine the context in which students apply their evaluative thinking. This context is in the evolution of their understanding of the world around them. If skill acquisition is to be achieved in students, the attributes of evaluative thinking must also be simplified to align to this student context.

The Expanded Logic of Evaluation¹⁶ includes ten distinct steps in the process of evaluation, enabling something to be fully described and fully judged.¹⁷

Creatable's approach to evaluative thinking skill acquisition for students is closer to a simpler definition of evaluation: Deciding what makes something a something, Deciding how to know something that is good, Deciding how good a specific something is.¹⁸

¹⁵ Buckley, J., Archibald, T., Hargraves, M., & Trochim, W. M. (2015). Defining and Teaching Evaluative Thinking. *American Journal of Evaluation*, 36(3), 375–388. <https://doi.org/10.1177/1098214015581706>

¹⁶ V Gullickson, A. M. (2018). Doing evaluation: Task analysis as a pathway to progress evaluation education. Australasian Evaluation Society Conference.

¹⁷ Stake, R. E. (1977). The Countenance of educational evaluation. AA Bellack & HM Kliebard. Eds, 1, 372–390.

¹⁸ Gullickson, A. M. (2020). The whole elephant: Defining evaluation. *Evaluation and Program Planning*, 79, 101787. <https://doi.org/10.1016/j.evalprogplan.2020.101787>

An evaluative student has an evaluative mindset, asks the right questions, collects reliable and relevant information, analyses for insight and meaning, and makes evaluative claims. Evaluative thinking enables students to understand the world around them by testing ideas and approaches against their present knowledge. It can also be applied in an introspective capacity to improve a student's understanding of themselves. This in turn could improve self-perception and may help students to make decisions about how their time and energy is directed.

Students live in uncertain times and face an uncertain future in which there will be challenges to overcome or solve. Evaluative thinking is a key component of problem solving and provides a scaffold for students to experiment with ideas and test solutions. It imbues students with a sense that the world can be understood, that there are different ideas that are worth trying, and that they are capable of affecting change. While there is a case to be made for improving evaluative capacity in students from an industry and employment perspective, there is clear value in acquiring evaluative thinking skills for personal development.

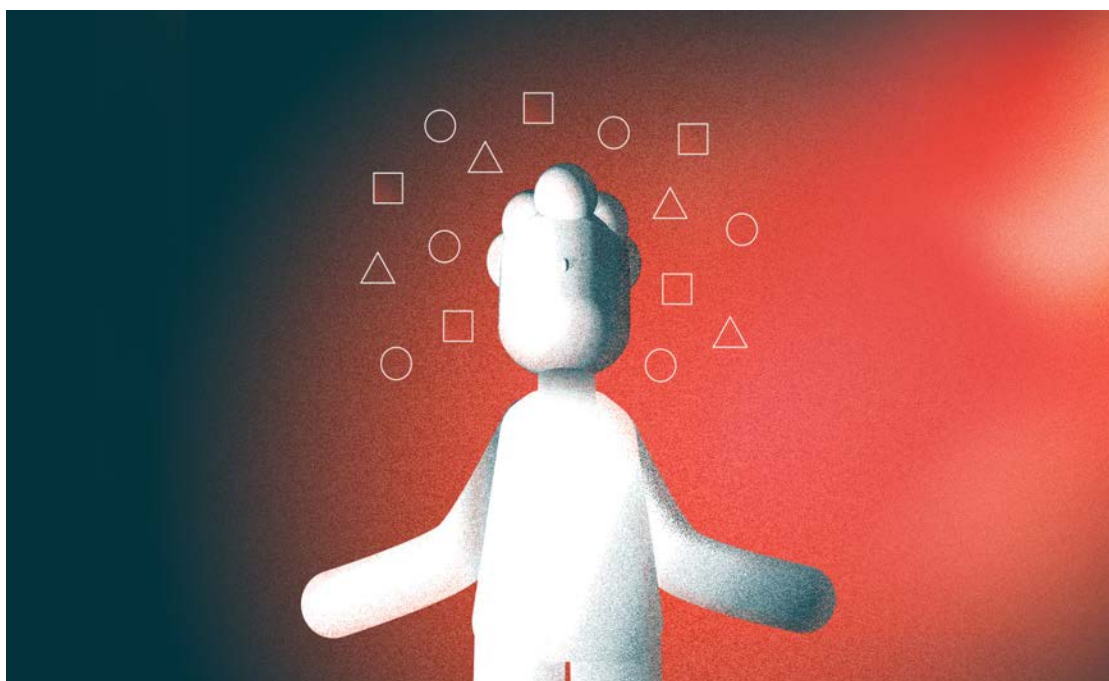


IMAGE FROM CREATABLE'S COURSE: NURTURING EVALUATIVE STUDENTS

Why is it valued by industry?

Evaluation is pertinent to industry and companies of all sizes, sectors, and levels of maturity. At a fundamental level, evaluation is required to identify market trends, establish product market fit, ascertain commercial viability, and develop an appropriate and effective product or solution. A company which is highly evaluative in their systems, processes, and people can be adaptable to disruptions, and persist in a changing industry landscape. Evaluation reaches beyond classroom and staffroom contexts and equips any person entering the modern workforce with a skill that fulfils an industry need.

Companies from varied sectors have pioneered the concept of cross-functional teams as a way to increase innovation, improve communication, and reduce time to market across a business. At a systemic level, this means that jobs are no longer presumed to be siloed; often, groups of people from varied specialisations work together to achieve common goals. Using this approach, evaluation is embedded within every person's role as common knowledge cannot be assumed and assumptions are challenged. As teams present ideas and propose business cases, their approaches align with the consistent questioning, reflecting, learning, and modifying¹⁹ that is foundational to evaluation. Evaluation in this context is grounded by cultural cornerstones such as embracing the unfamiliar, learning from others, and valuing failure, which are common to modern industry.

¹⁹ Bennett, G., & Jessani, N. (Eds.) (2011). The knowledge translation toolkit: Bridging the know-do gap: A resource for researchers. SAGE Publications India Pvt Ltd, <https://dx.doi.org/10.4135/9789351507765>

At a process level, evaluation is also incorporated into the ways that projects are managed and delivered. Agile methodologies were developed in the 1990s as a response to the needs of the growing software development industry, and popularised by the publishing of the Manifesto for Agile Software Development in 2001.²⁰ While not the only way to operate, agile methodologies have achieved mass sector-agnostic adoption since the start of the 21st century, and provide a meaningful example of the type of disciplined approach to systemic enquiry that is required for evaluation.

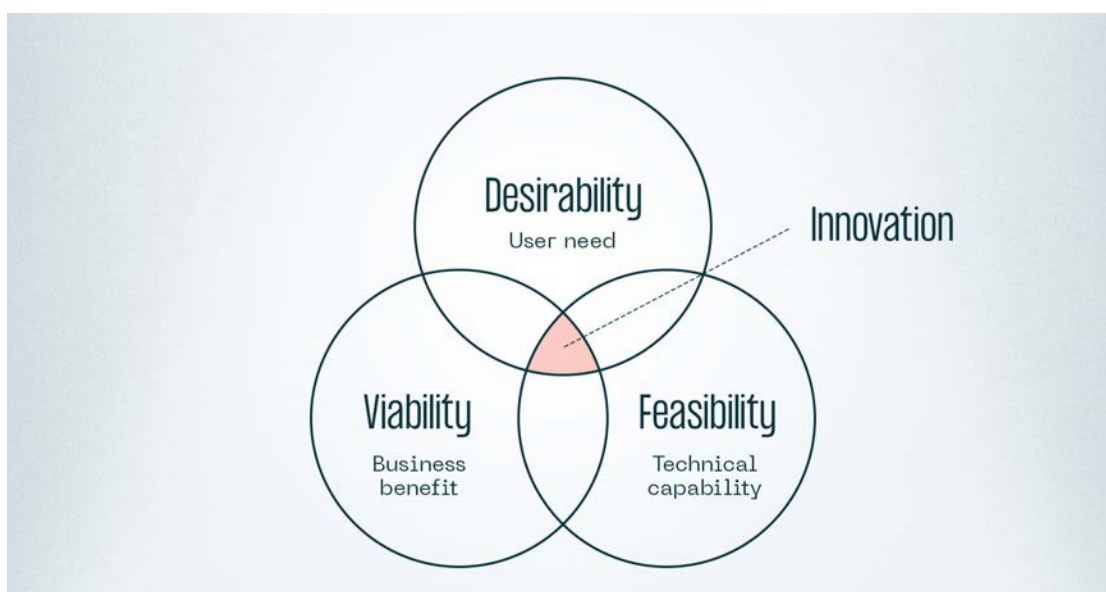
Agile methodologies create structure and define a shared language around an approach to work. They include a regular cadence of iteration; different types of structured meetings which focus on alignment, reflection, or planning; collaborative group discussion regarding the size, scope, and success criteria of tasks; and deliberate, consistent prioritisation of work that accounts for unexpected shifts or changes. These activities demonstrate ways in which the core tenets of evaluative thinking such as asking questions of substance, and applying findings to improve processes can be implemented in a contextually relevant way.



AGILE METHODOLOGY IS AN ITERATIVE DELIVERY FRAMEWORK

²⁰ Beck; Grenning; Martin; Beedle; Highsmith; Mellor; van Bennekum; Hunt; Schwaber; Cockburn; Jeffries; Sutherland; Cunningham; Kern; Thomas; Fowler; Marick (2001). "Manifesto for Agile Software Development". Agile Alliance.

To conclude, while there is clear evidence of the value that industry places on evaluation, there have interestingly been early signs of the evaluation sector engaging with ideas from industry. Some academics have investigated and presented on the relevance of the Design Thinking processes^{21 22} to the evaluation community. Design Thinking is an approach to problem solving attributed to the Californian design company IDEO, however it has academic roots dating back to the 1970s.²³ Design Thinking has enjoyed 15 years of mainstream industry adoption, and is an excellent example of how philosophical and academic ideas can be adopted in mainstream industry.²⁴ The willingness of evaluation researchers to engage with ideas like Design Thinking indicates an appetite to learn from industry and align with industry best practice. This speaks to the idea that Creatable has explored in this article: an articulation of the shared value of, and a desire for alignment on, skills which are relevant to the future of work.



DESIGN THINKING IS A HUMAN-CENTERED APPROACH TO INNOVATION

²¹ Chen, H. T., Gargani, J., Stead, B., & Norman, C. (2015). Program design business meeting: Program design – Evaluation's new frontier? American Evaluation Association Annual Conference.

²² Dart, J., Webb, S., & Tolmer, Z. (2017). Stepping out: Evaluators working as designers. Australasian Evaluation Society Annual Conference.

²³ IDEO. (2018). IDEO | Design Thinking. <https://designthinking.ideo.com/history>

²⁴ Baytaş, M. A. B. (2021, May 15). The Story of Design Thinking. Design Discipline. <https://www.designdisciplin.com/the-story-of-design-thinking/>

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