EST302

Researching Classroom Practices

Assignment #2

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Introduction.

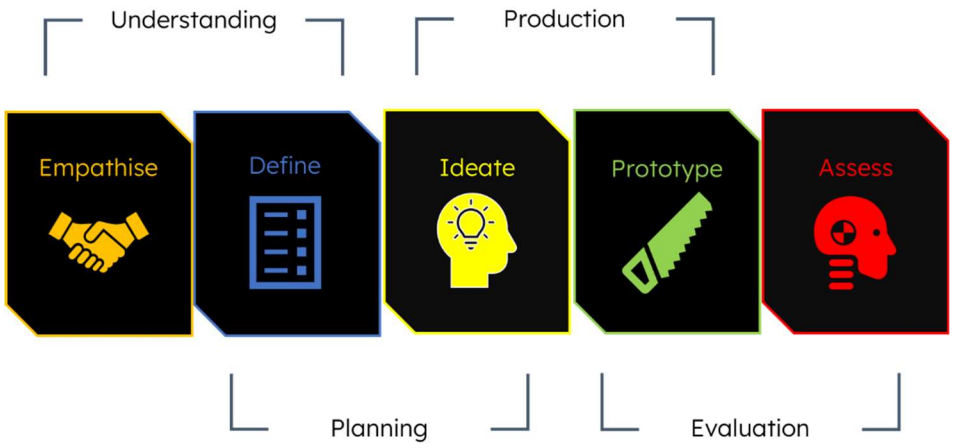
Reflecting on my own experiences with teachers, my short journey to becoming a teacher, as well as now being a father of a child in the school system, there is this tremendous desire to become not just a teacher, but one that will be remembered as an excellent educator. With the feelings of wanting to excel in this new profession, there are also feelings of uncertainty and anxiousness of what a 'great teacher' looks like and how someone like me achieves that goal.

According to the Teach Queensland website, a good teacher is patient, enthusiastic, has a great sense of humour, keeps calm under pressure, is agile and flexible, and is creative (Queensland Government Department of Education, 2022). From an employer's perspective, good teaching candidates have a passion for teaching, a commitment to continual education, responsive to the needs of learners, critical thinkers, and problem solvers (Seek, n.d.). In the Australian Institute for Teaching and School Leadership (AITSL) Guide to the Certification of Highly Accomplished and Lead Teachers in Australia (2017), highly-accomplished teachers are recognised as knowledgeable and active members of the school who are highly effective and skilled classroom practitioners. Teachers who engage, help and lead others in developing effective teaching practices to improve education outcomes. Teachers who provide positive learning environments and seek to understand individual student context to maximise learning opportunities. Educators with in-depth knowledge of their teaching areas. Those who establish environments that encourage and support professional learning for themselves and their colleagues. And finally, teachers who behave ethically at all times.

In any new profession or role, learning is the key to building knowledge and skills used to achieve associated goals and outcomes. For teachers, professional development (PD) is not only the formal and informal learning experiences undertaken to help improve professional teaching practices, it is also what helps to build good foundations for the school (Cole, 2012; Holland, 2005). And whilst there are many significant reasons for continual PD, one major consideration is that teacher PD improves student learning and achievement (Blank & de la Alas, 2009; Holland, 2005).

The aim of this document is to develop a professional learning framework that incorporates the Design Thinking Process (DTP) to help identify professional learning needs, understanding potential challenges, develop, produce, and test workable solutions, as well as provide the flexibility to re-design and re-test, if needed.

The Design Thinking Process.



Regarded as a way of thinking that leads to innovation and transformation in the way we do things, DTP is a creative, analytical, and iterative process that allows a person to experiment, create and evaluate models/assumptions, gather feedback, and redesign potential solutions (Razzouk & Shute, 2012; Tschimmel, 2012). Deeply rooted in science and engineering (Simon, 1969) and in constructivist pedagogy (Clarke & Pittaway, 2014), design thinking is a structured framework which helps the user understand, formulate, create, and evaluate solutions to specific problems.

The DTP is separated into various stages that represent a specific part in the design timeline, from concept to production. The first step of the DTP is to *empathise*. Getting to know the need, the user, and in what ways the need affects the user. The next step is to clearly *define* the challenge. What is the main issue? Set a point of view specific to the users' needs and requirements. The third step is about *ideating*, brainstorming as many ideas/solutions as possible. Following the ideate step is *prototyping,* where designers build a representation of their solution (to the problem) for the final step, *assessing* the efficacy of the solution. The DTP allows the designer to continually cycle through the stages until the final product or process is achieved.

Empathise.

The information gathering stage, where the designer develops an initial understanding of the need and the user, by placing themselves in the position of those who are being affected by the issue and for whom the solutions are designed.

Why is there a need?

At the very start of this year, I completed a teaching placement at a Darwin senior secondary school. In a year 10 computing class, I firstly observed and then got to work with a new international student who had just started his senior high school experience. It was a new school in a new country. With a limited command of English, James struggled with the content and instruction. Even though the school system clearly indicated James needed additional literacy support, none was forthcoming in the time I was there, and it was up to the classroom teacher (and later myself) to provide the additional support the school openly indicated James needed. It was a difficult task on two fronts. Firstly, with a class size of 26 students, the classroom teacher could not find the time to provide the level of support James needed. Secondly, as a pre-service teacher, my experience in dealing with English as an additional language or dialect (EALD) students was limited, in fact, I had no practical experience. Due to the language barrier, I spent most lessons with James pointing at the monitor and which buttons to click. I was not really teaching, and James was not really learning. I knew I needed help to learn and develop better teaching practices. Reflexive and generative strategies that would help improve learning opportunities and outcomes for James as well as other EALD learners.

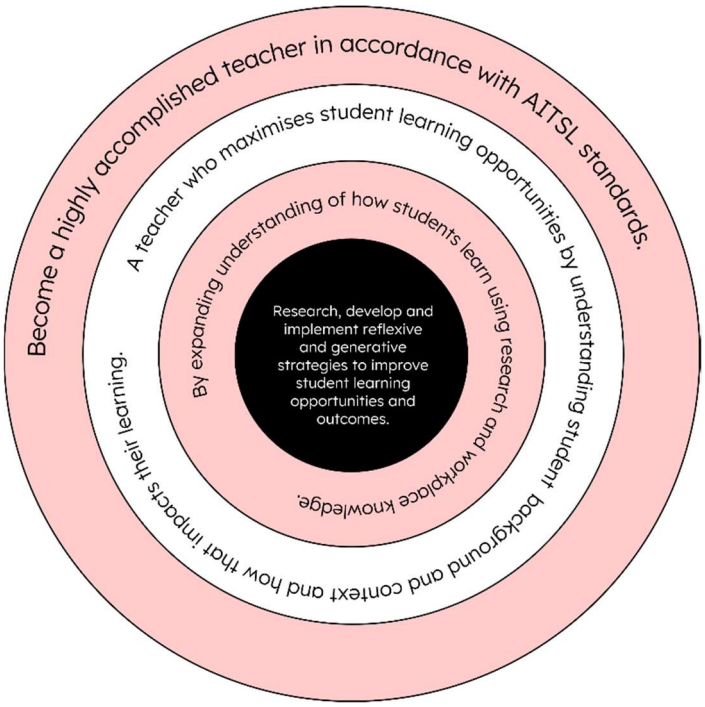
For whom?

The professional learning plan will be designed for me, and others like me. New teachers who require assistance and guidance to improve knowledge and skills, along with classroom practices and strategies. New teachers whose aim is to become more effective practitioners, with the goal to become highly accomplished teachers.

Define.

The define stage is about understanding the need and challenge with a more narrowed focus. Defining the key area of concern or area requiring improvement, focussing on what needs to be achieved, and the parameters that guide the next stage of the design thinking process.

What is the need?



Starting with the overarching challenge, the above diagram demonstrates how the define process narrows the focus from a broader need, to key drivers that may help a new teacher successfully achieve the overall goal. To become a highly accomplished teacher, AITSL certification guide (2017) states candidates must be able to demonstrate the ability to maximise student learning opportunities by understanding the student's background and how that background affects their learning. To achieve this, AITSL professional standards 1.2 states highly accomplished teachers must employ research and workplace knowledge to gain that understanding (AITSL, n.d.). Research and workplace knowledge that should include key drivers such as developing and employing reflexive and generative strategies to improve opportunities and outcomes for students.

Reflexive learning is about finding strategies that challenge the way we think. Strategies that challenge our values, assumptions, habits, and biases (Bolton & Delderfield, 2018). Reflexive learning helps us examine and analyse our own behaviours, our knowledge (along with its limits), and question how our beliefs and influences can impact our personal and professional practices and interactions (Bolton & Delderfield, 2018; Cole & Knowles, 2000; Prpic, 2005). Generative learning is a form of constructive pedagogy (Brod, 2021; Fiorella & Mayer, 2015; Lee et al., 2008) where individuals build meaning and understanding by actively integrating new information into existing schema, creating relationships between new experiences and memory (Wittrock, 1974; Wittrock 1992).

Why is it a need?

The Teachers Registration Board of the Northern Territory (NTTRB) Code of Ethics (2020) outlines an ethical responsibility for teachers to respect uniqueness and diversity of the community whilst being an example of the principles of social justice and equity. According to data from the Northern Territory (NT) Department of Education, up to 50 percent of NT students enrolled, have a language background other than English (NT Government Department of Education, 2022). Meaning, at any given time, up to half of the students in a classroom could be learning with English as an additional language or dialect. Learners, no matter their background, deserve an education that is inclusive and free from discrimination where we (educators) are able to reflexively overcome our limitations and restrictions to identify individual student learning needs and barriers and provide generative learning support to conquer those challenges (Education Services Australia, 2019).

Having reflexivity in teaching allows me to challenge the way I am teach. It allows me to question whether my current practices and strategies are providing the best possible learning opportunities and outcomes for all students, not just those who are learning with EALD. Having generativity in learning promotes student engagement as learners are actively trying to connect new information with concepts they are familiar with. For instance, with James, it would be more than just mouse-clicking where he was told. Generative learning would be James actively understanding why he was clicking where he was clicking and how clicking there impacted other learning or other parts of the process.

S.W.O.T analysis.

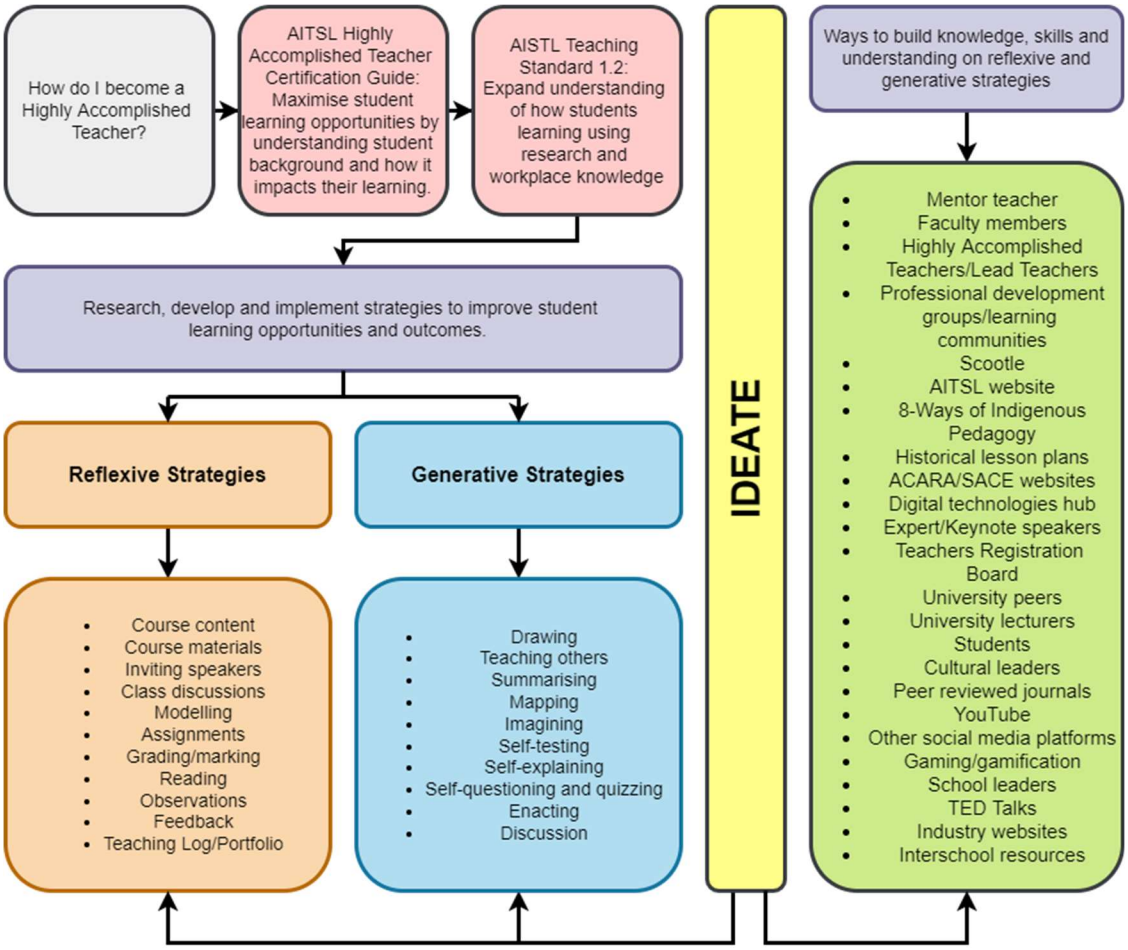
	Research, development and implement reflexive strategies	Research, development and implement generative strategies

Strengths	• Can improve teaching practices
	• Can improve professional relationships between student/teacher
	• Promotes inclusivity and equity
	• Can improve student learning and outcomes
	• Can improve student motivation
	• Can improve student engagement
		• Can improve student engagement
		  ○ Students are more inclined to participate in class activities.
		• Can improvement student learning outcomes
		  ○ Student engagement has a direct correlation with student academic achievement (Carini et al., 2006; Reyes et al., 2012).
		• Can improve student motivation
		  ○ Students are more inclined to come to class. Engagement and self-motivation are linked (Saeed & Zyngier, 2012)

Weaknesses	• Nothing to note	• Nothing to note.
Opportunities	• To improve professional learning • To improve professional practices • To improve professional standards • To improve student learning opportunities and outcomes	• To improve professional learning • To improve professional practices • To improve professional standards • To improve student learning opportunities and outcomes
Threats	• Time and effort required for continual professional learning or not having a professional learning plan in place. • Insufficient learning support structure • Insufficient resources • Cohort sizes too large • Restrictions on the use of certain resources • Misunderstanding of student context and individual learning needs • Miscomprehension of curriculum content, guidelines, and outcomes	• Time and effort required for continual professional learning or not having a professional learning plan in place. • Insufficient learning support structure • Insufficient resources • Cohort sizes too large • Restrictions on the use of certain resources • Misunderstanding of student context and individual learning needs • Miscomprehension of curriculum content, guidelines, and outcomes

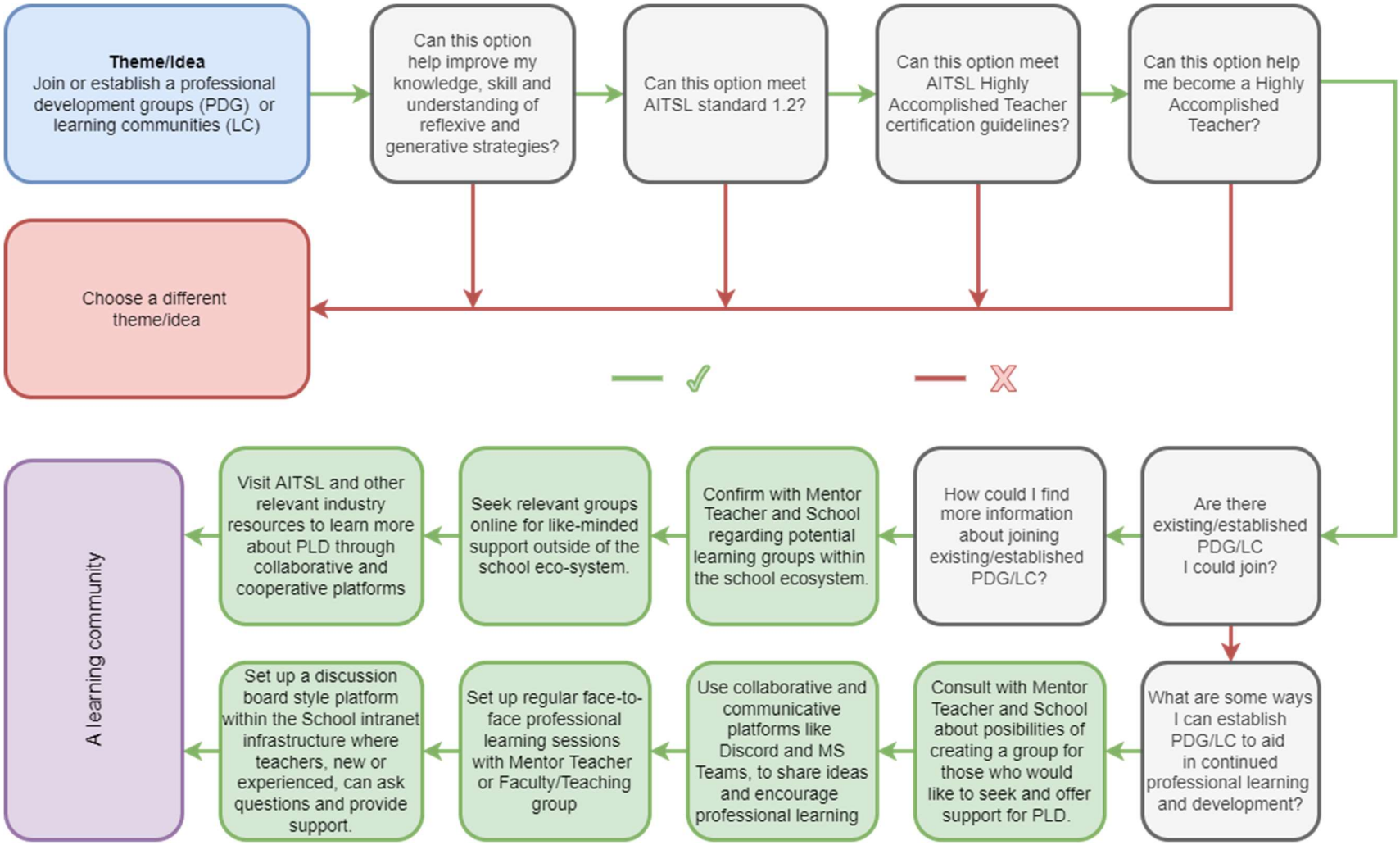
Ideate.

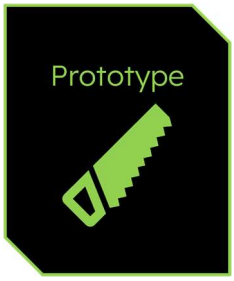
Within the DTP, ideation is about removing the boundaries and limits of imagination with the aim of brainstorming as many potential ways as possible to meet the need.



The above diagram shows the ideation process being completed on two separate fronts. Firstly, the process determines how we are going to meet the need through brainstorming reflexive and generative strategies. Secondly, the ideation process provides different ways the user can build knowledge, skills and understanding on reflexive and generative strategies for teaching and learning.

Professional Learning Roadmap.





Prototype.

The prefix *proto* is Greek in origin, meaning ‘first time’ or ‘first formed’ (Merriam-Webster, n.d.). Similarly, prototyping in the DTP is where the designer constructs a functional model or solution for testing based on a theme from the ideation stage.

Course material as a reflexive strategy.

Reflexive strategies in teaching encourages me to challenge my teaching practices. Am I inclusive and demonstrate social and cultural sensitivity? Have I built a safe and supportive learning environment for my students? And are my teaching methods maximising learning opportunities and outcomes for my students?

Another way of employing reflexive strategies in teaching is challenging course material. Life is diverse and intricately complicated. Reflexivity is said to happen when learning content reflects and reveals the complex and multifaceted nature of human lives (Sinacore et al., 1999). Course material should be realistic in its representation of diversity and lived experiences. For example, the data from the NT Dept. of Education stated that up 50 percent of students could be EALD learners because they speak a language other than English at home. With this in mind, is it fair that learning content is delivered only in spoken or written English? Is there a way to deliver learning material in other formats, to maximise learning opportunities for Aboriginal and Torres Strait Islander learners and international students like James? Given how society has evolved, do images of families in course materials need to always have a mum and a dad? Is the content dated and are current teaching examples in breach of misgendering or gender stereotypes?

Drawing as a generative strategy.

Learning by drawing is where learners (by freehand or by digital/technological means) create an image to illustrate a lesson (Leutner & Schmeck, 2014). The learner provides an image or set of images that confirms their understanding of what has been taught. According to Fiorella and Mayer (2015), generative learning through drawing happens when the learner translates the spoken word or text to a graphical representation.

When the learner selects the relevant information and organises it spatially, using prior knowledge to define the spoken-word or text and its relationship to the drawings or images. Using this form of generative learning in my teaching strategy with James would have been more effective. Instead of trying to overcome the language barrier through spoken or written English, I could have provided James with a serious of images, screen shots or a story board to illustrate the learning content and meaning. This type of generative teaching also speaks to the way our First Nations people learn. 8 Ways (n.d.) pedagogy shows learning can happen through non-verbal and non-written means. Aboriginal and Torres Strait Islander learners (who are also EALD learners) learn through visualisation processes, by using symbols and images, a cross-cultural strategy, to link understanding and meaning to concepts and content.

A community of learners.

Collaborative learning is described as a teaching and learning approach involving groups of learners working collectively to solve a problem, complete a task, or create a product (Laal & Ghodsi, 2012). The solution put forward is to develop a professional learning plan that involves joining or establishing a learning community where new teachers have access to more experience educators. The idea is to join or create a platform/resource where teachers, new and experienced, can ask questions, share ideas/strategies/methods, and provide support for one another.

According to Johnson (1989), Laal and Ghodsi (2012), and Panitz (1999), the extensive advantages of collaborative learning can be categorised into three areas of benefit. Social, psychological, and academic. Some examples of benefits include:

Social	Psychological	Academic
• Develops social support systems for learners • Develops learning communities • Builds diverse understanding amongst learning group	• Increases self esteem • Cooperation can reduce anxiety	• Promotes critical thinking • Promotes problem-solving • Engages active learning

Assess.

The assessment stage is centred around evaluating the effectiveness of the working model. Is what has been created fit for purpose? How does it meet the objectives and guidelines? What changes are needed for improvement?

As this model is not live, the ability to truly evaluate the effectiveness is unattainable. Without a live iteration it would be difficult to know whether the personal learning plan meets the design brief. From a hypothetical perspective, a way to obtain feedback and data would be to survey the user(s). Responses to questions could include rating scales and commentary for quantitative and qualitative analysis. Once evaluation is completed, the designer would continue to cycle through the stages of the design thinking process until an iteration of the model provided the optimum output.

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