

# YOUR GUIDE TO:

USING LEARNING THEORIES &  
MODELS TO IMPROVE YOUR  
TRAINING INITIATIVES



# USING LEARNING THEORIES & MODELS TO IMPROVE YOUR TRAINING INITIATIVES

No two learners are alike and the way every person learns varies. Like with fingerprints, our brains are all unique. Additionally, all of us have different backgrounds and have had different experiences. This is why there are a number of different ways we learn, leading to learning theories and models.

Learning theories consist of premises and conclusions, sometimes based on models or taxonomies. Whilst Learning models tend to be sets of principles. These explain how we best acquire, retain, recall and apply new knowledge and skills. Psychologists and researchers have spent countless hours hypothesising, researching, and testing theories and models to better understand how we learn.

Understanding this process helps us to design effective training experiences. Better still, some learning models provide us with practical frameworks that we can use as a template for success.

If you're interested in learning theories and models, then you're in luck. There are hundreds of them to explore. But, it can sometimes be difficult to know where to start. As a result, we've curated a list of the learning theories and models that we believe you simply have to know. These are the cream of the crop. They are the kind of theories and models that fundamentally alter the way we think about and approach learning and development.

With that in mind, let's get stuck into the **learning theories and models that will help you improve your training initiatives.**

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## 1. BEHAVIOURISM LEARNING THEORY

In essence, behaviourism refers to the notion of learning to display or not to display certain behaviours through reinforcement or punishment. This implies that external stimuli affect a learner's behaviour. As a result, by conditioning the learner's response to the stimuli they can be taught new behaviours. Behaviourism is therefore a universal learning process.

Behaviourism was founded by the American psychologist John B. Watson.<sup>1</sup> However, it was the research and work conducted by Ivan Pavlov<sup>2</sup>, Edward Thorndike, and B.F. Skinner that led to the classical and operant conditioning. The most classical example of behaviourism was the experiment led by Ivan Pavlov (aptly called Classical Conditioning<sup>3</sup>), which involves:

- **Before Conditioning:** An unconditioned stimulus (e.g. food) which naturally produces a response (e.g. dog salivation).



- **Before Conditioning:** Another unconditioned stimulus (e.g. the bell) which naturally produces no response.



- **During Conditioning:** The combination of two unconditioned stimuli (e.g. bell and food) to programme (i.e. condition) a response (e.g. salivation).



- **After Conditioning:** Resulting in the conditioned stimulus (e.g. the bell) eliciting the same response as the food. Hence, the dog salivates when the bell rings as the only stimulus.



Similarly, behaviourism can be applied to an L&D programme with the use of positive and negative reinforcement in training. For instance, a programme may impose as negative reinforcement a meeting with a supervisor to explain why a training module has not been completed on time.

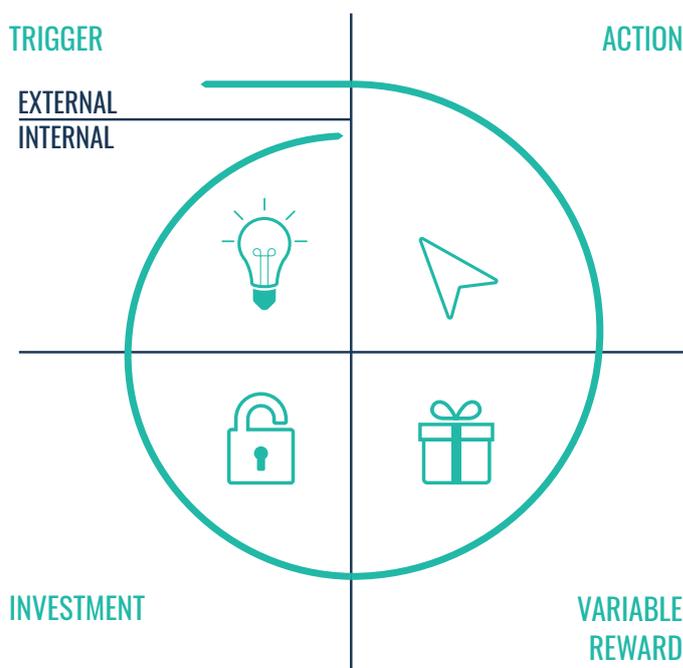
On the other hand, gamification<sup>4</sup> is the perfect way to introduce behaviourism to your learning strategy. You could use experience Points (XPs) as a reinforcement for learners to complete specific pieces of content. Additionally, you can use leaderboards where learners can see that they are behind to motivate them to complete more content now.

## 2. THE HOOK MODEL

The Hook Model, as formulated by author Nir Eyal<sup>5</sup>, is a four-phase process for creating new habits<sup>6</sup>. Understanding this process can help us to drive behaviour change. After all, when an activity becomes habitual, we start to do it automatically and without too much thought. Imagine what you could achieve if you turned learning into a habit?

The Hook Model shows us that there are four steps required to forge a new habit:

1. **Trigger:** A prompt to action. This could be an external trigger (for instance, an email) or an internal trigger (for instance, a craving).
2. **Action:** The desired behaviour. In other words, the act prompted by the trigger.
3. **Variable Reward:** A reward for completing the activity or displaying the right behaviour. By varying the reward<sup>7</sup> you are appealing to your learners' innate sense of curiosity.
4. **Investment:** By moving through the first three steps, your learners are making a time- and effort-based investment into the hook cycle.



This investment makes it easier to go through the hook cycle again (and again). After all, the learners have already made a commitment of sorts. Repeat the cycle enough and voilà: a new habit will have been formed!

### 3. BJ FOGG'S MODEL FOR BEHAVIOUR CHANGE

All learning initiatives worth their salt have a common goal in mind: behaviour change. Unfortunately, this is no easy task. It's much easier to stick to what we know than it is to embrace new approaches. That's where BJ Fogg's model<sup>8</sup> comes in. Back in 2009, he and his team at the Persuasive Technology Lab at Stanford University published a practical framework<sup>9</sup>. In short, this framework shows us how to drive behaviour change throughout an audience.

The model suggests that behaviour change requires three things:

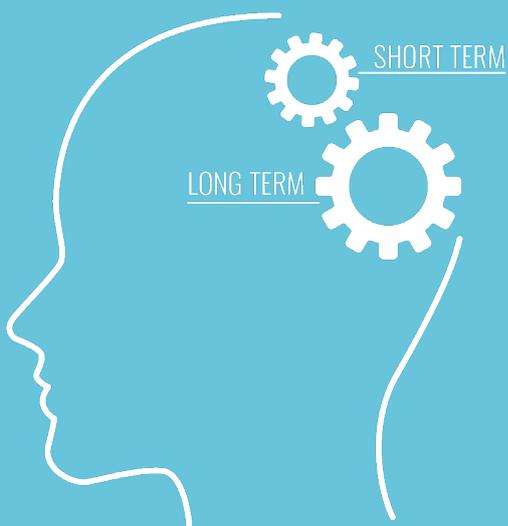


- **Motivation:** We must understand the benefits relating to the action or new behaviour. This in turn must make us want to act.
- **Ability:** We must be able to complete the action. Time, money and physical effort may act as detractors here.
- **Trigger:** The final piece of the puzzle requires prompting your learners to spring into action.

This model can be presented as a helpful equation: **B = MAT**. If your learners have the motivation and the ability to complete an activity, then all they'll need is the right trigger.

### 4. COGNITIVISM LEARNING THEORY

Cognitivism theory suggests that learning is more than just responding to stimuli (as suggested by behaviourism learning theory). Instead, the cognitive theory suggests that internal thoughts and external forces are both an important part of the cognitive process to supplement learning.



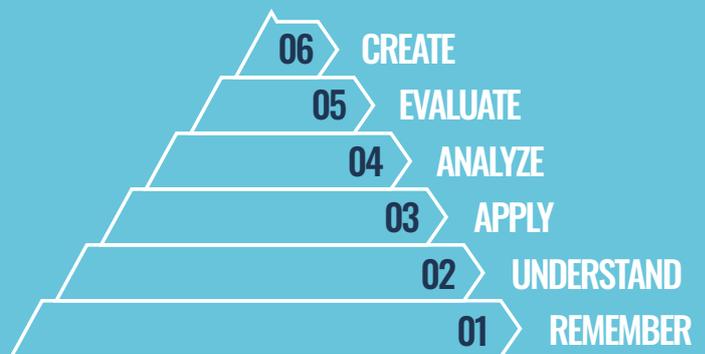
As learners understand how their thinking impacts their learning and behaviour, they are able to assert more control over it. Whilst behaviourism suggests that learners have a passive conditioned role in learning, cognitivism suggests that they actually have a more active role.

Plato and René Descartes (the latter famous for “Cogito, ergo sum”<sup>10</sup>, i.e. I think, therefore I am) are two of the first philosophers that focused on cognition and how we as humans think. This led to a lot more research in the area. Jean Piaget<sup>11</sup> is a highly important figure in the field of cognitive psychology. According to Piaget and this theory, understanding experiences is the way to learn.

You should engage those who naturally do cognitive learning with activities encouraging them to think. This should include many analogies and real-world examples, preferably within a formal learning approach (such as digital learning courses and webinars). You should also make sure you use lots of images and short text.

### 5. BLOOM'S TAXONOMY

Educational psychologist Benjamin Bloom<sup>12</sup> devised the first version of his now-famous taxonomy<sup>13</sup> in 1956. His aim was to place learning objectives<sup>14</sup> within specific categories based on complexity. These categories help us to understand the associated level of educational achievement linked to every learning task. The taxonomy was revised back in 2001 and is now structured as below.



The taxonomy is formulated like a pyramid. Students start with basic learning and move their way up through each level until they have mastered the subject at hand. The learning experience becomes more active as they progress. What begins with rote memorisation ends with being able to use the information to create something new.

Bloom's taxonomy has a number of uses for teachers, instructors and corporate trainers. First and foremost, it allows you to assign learning objectives or tasks, based on your audience's competency level. In addition, we can also use the taxonomy to assess the level of our audience's educational achievement over time.

## 6. HUMANISM LEARNING THEORY

Humanism proposes that the individual pursues self-actualisation, which is what drives its growth. The point at which all of your needs are met and you feel content that you are the best possible version of yourself is self-actualisation.

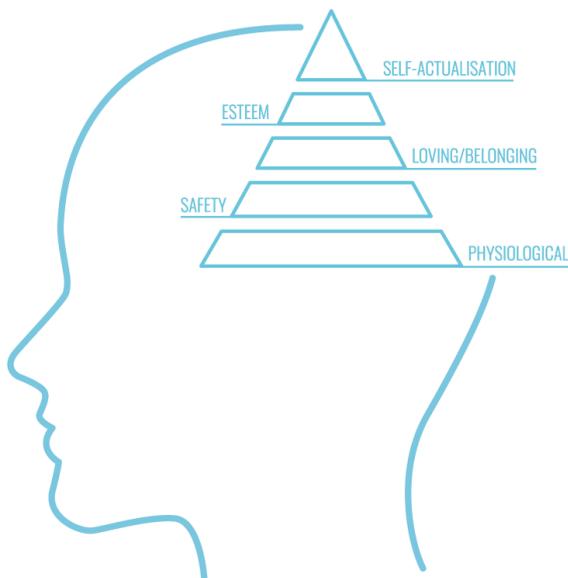
Abraham Maslow<sup>15</sup>, Carl Rogers and other humanists do not believe that most people actually reach self-actualisation. On the contrary, they believe that people are always in pursuit of it and that the closer they get the more they learn.

Using a humanistic approach when designing L&D programmes is a really powerful way to engage your learners. A flexible/personalised learning journey can achieve this.

You should also give them the opportunity to elevate themselves above the role of a simple learner via their contribution to the group's learning experience and the (re-)sharing their knowledge and skills. For this purpose, you can use group discussions, forums, social streams, as well as scenarios and role-playing.

## 7. MASLOW'S HIERARCHY OF NEEDS

In 1943, Abraham Maslow<sup>16</sup> published a paper called A Theory of Human Motivation. This paper contained his 'Hierarchy of Needs'<sup>17</sup>, a model that would transform the way we think about motivation and goal attainment. The hierarchy is presented in a pyramid format, with five levels.



The four lower levels are physiological needs. The fifth and topmost level is a 'growth' need. In order for our growth needs to influence our behaviour our lower level needs must first be satisfied.

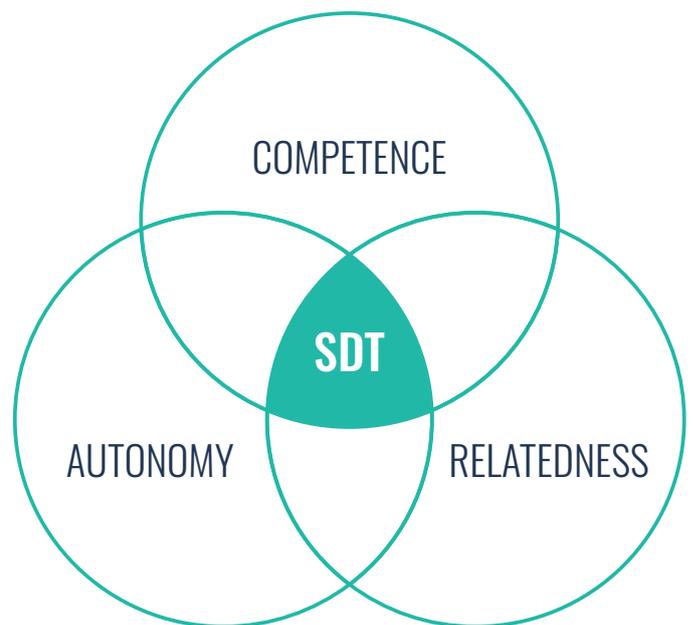
1. **Physiological:** Things like air, water, food, sleep, sex and so on.
2. **Safety:** Things like our health, property, the environment, our employment status and so on.
3. **Belongingness:** Things like love, friendship, family and so on.
4. **Esteem:** Things like self-esteem, status, achievement, confidence and so on.

5. **Self-actualisation:** Things like our sense of morality, creativity, problem-solving acumen and so on.

This hierarchy helps us to understand what drives our learners and enables us to prioritise accordingly. It also helps us to understand how physiological factors may affect our learners' capacity for effective learning.

## 8. SELF-DETERMINATION THEORY

Self-determination theory<sup>18</sup> tells us the psychological ingredients required to 'determine' an action. Think of it as a recipe for creating motivation and driving activity<sup>19</sup>. The theory was created by psychologists Richard Ryan and Edward Deci back in the 1970s. It's useful in a learning context because it shows us the criteria that need to be satisfied for students to fully embrace a learning experience<sup>20</sup>.



The three psychological needs that must be met before we are motivated to act are as follows:

- **Competence:** We must feel confident that the action we take will be effective. Any uncertainty or fear of inadequacy may temper our motivation.
- **Relatedness:** We must believe our action will carry weight within a wider community. Motivation is hard to come by within a social vacuum.
- **Autonomy:** We must believe we are free to act. Compromise this freedom in any way and engagement levels are likely to plummet.

## 9. THE 70:20:10 MODEL

The 70:20:10 model<sup>21</sup> is useful for learning professionals, as it shows us how we take in information about the world around us. As a result, it can help us to prioritise our initiatives accordingly. The model was created in the 1980s by Morgan McCall and the Centre for Creative Leadership<sup>22</sup>. Their research found that:

- Only 10% of what we learn happens through formal training<sup>23</sup>. That's things like pre-set curricula, classroom events, textbooks and so on.
- 20% of what we learn happens through developmental relationships. In other words, through a social context between two or more people.
- And a whopping 70% of what we learn happens through on-the-job experience. This is a significant slice of the overall learning pie!

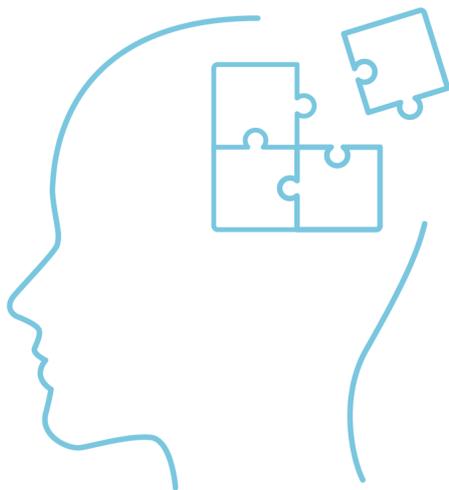
Accordingly, this information helps us to understand where we should apply our focus. Relying too heavily on formal training interventions will slow you down considerably. Instead, you should create an environment where informal<sup>24</sup>, social<sup>25</sup> and experiential<sup>26</sup> learning thrive!



## 10. CONSTRUCTIVISM LEARNING THEORY

Constructivism learning theory is based on the idea that learners build their own understanding based on their experiences as well as previous knowledge and skills.

This learning theory focuses on learning as an active construction process, that is personal and unique to each learner.



Therefore, learning is dependent on how learners individually interpret the provided information.

The work of Jean Piaget can be used to trace constructivism. Piaget focused on how humans create meaning and develop in relation to the interactions between their experiences and their ideas<sup>27</sup>.

To best incorporate constructivism theory in L&D programmes, you can relate what is being learnt to other bodies of learning (previously acquired or not) or to previous experiences.

You can also use case studies, research projects, collaborative work, and simulations to establish a link to the experiences of others and to create new experiences.

## 11. KOLB'S EXPERIENTIAL LEARNING CYCLE

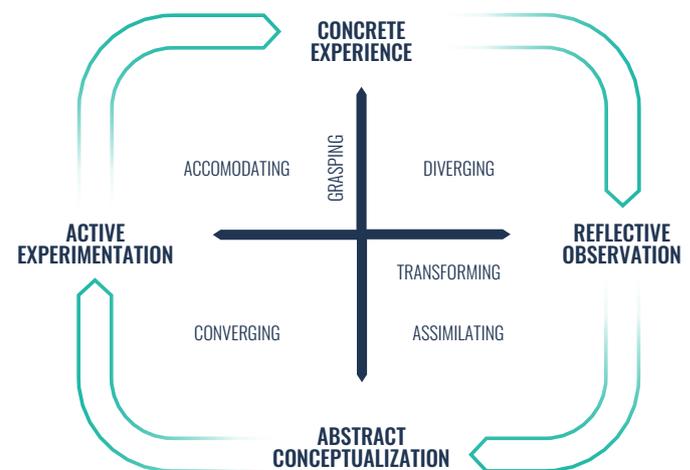
Educational theorist David Kolb<sup>28</sup> published his learning styles model back in 1984. This was our first introduction to the experiential learning cycle<sup>26</sup>.

The cycle is based on his belief that "knowledge results from the combination of grasping experience and transforming it". It has four different stages:

- **Concrete evidence:** Personal hands-on experiences that we can learn from. After all, it's through experience that we learn from our successes and failures.
- **Reflective observation:** Once we've had the experience, we need to pause and reflect on it. What did we do right? What could we improve?
- **Abstract conceptualisation:** Now that the analysis is complete, we can make a plan for future success. At this stage, you should consider how you would change your approach.
- **Active experimentation:** We've had the experience, we've analysed it and we've strategised accordingly. Now it's time to act! After all, if we don't try it, we won't know if it works!

As this is a cycle, completing the action takes us right back to stage one. We then repeat the process again and again, improving as we go.

This model is useful to learning professionals as it can help us to structure our training interventions accordingly. It shows us that practice really does make perfect!

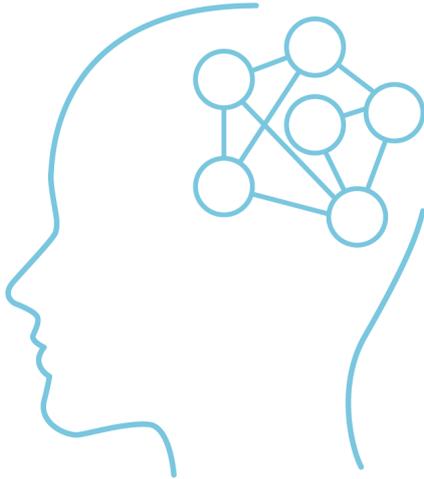


## 12. CONNECTIVISM LEARNING THEORY

Connectivism learning theory is the newest learning theory. Stephen Downes describes connectivism as "... the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks"<sup>29</sup>.

This theory suggests that humans acquire and process information by forming connections.

Connectivism has evolved within the digital age. In fact, you could also say that connectivism does not only work for humans, but also in a database, across devices, or organisations. This further suggests that connecting information is how learning occurs.



Modern organisations already use some principles of connectivism in their L&D programmes. However, to fully utilise connectivism theory they need to drive a digital learning culture.

This will necessitate the adoption of modern technologies such as learning management systems<sup>30</sup>, YouTube, online discussion forums, and social media<sup>25</sup>, helping them learn and share knowledge.

## 13. GAGNE'S NINE LEVELS OF LEARNING

Robert Gagne<sup>38</sup> was an American educational psychologist who helped to pioneer the science of instruction and learning. In 1965, he published Conditions of Learning, which set out the nine steps<sup>39</sup> that learners should experience when they are being taught something.

The 'Nine Levels of Learning' help trainers and educators of all sorts to structure their learning materials in the right way. In addition, the model provides a framework for creating instructional activities and a way of thinking about learning progress. Let's breakdown the nine steps involved:



**Gaining attention:** You can't teach someone anything if they're not paying attention.



**Informing learners of the objective:** Establish what the learning intervention will cover.



**Stimulating recall prior to learning:** Ask the learner to reflect on their previous experiences relating to the subject matter.



**Presenting the stimulus:** Present the learner with new information relating to the learning objective.



**Providing learning guidance:** Reinforce the information presented with alternative approaches.



**Eliciting performance:** Get your learners to demonstrate their newfound knowledge.



**Providing feedback:** Communicate any feedback necessary to help your learners to improve.



**Assessing performance:** Test your learners' knowledge and understanding.

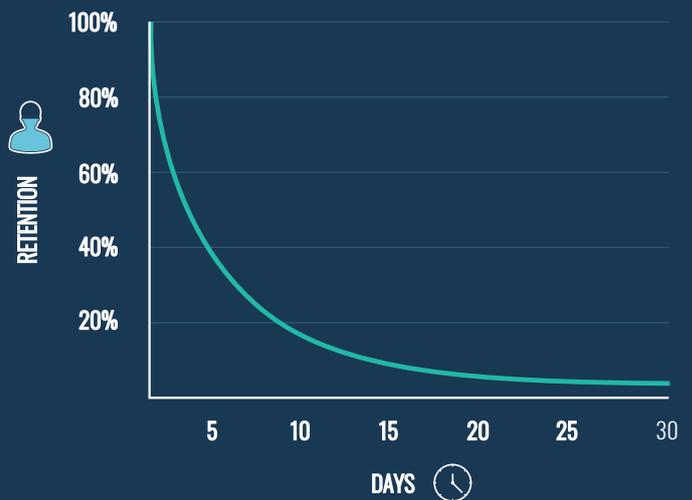


**Enhancing preparation and transfer:** Show your learners how they can apply their knowledge to different contexts and situations.



## 14. THE FORGETTING CURVE

Hermann Ebbinghaus's<sup>31</sup> Forgetting Curve<sup>32</sup> shows us how information is lost over time if you don't make an effort to retain it. In the latter half of the 19th century, Ebbinghaus ran a series of tests on his own memory. These tests saw him memorising nonsense syllables and repeatedly testing himself after various time periods and recording the results. By plotting the results on a graph, he created the 'Forgetting Curve', as shown below.

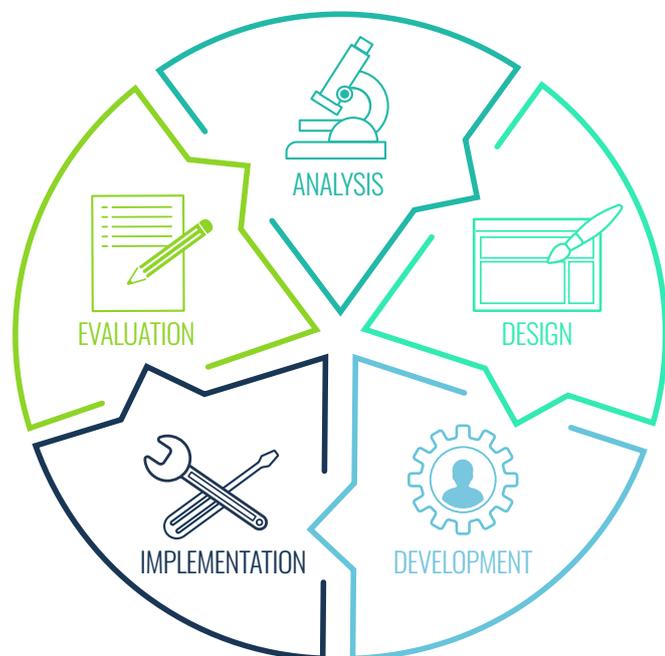


The curve shows us that information leaks out of our brains at an exponential rate. In fact, we forget 50% of all information within an hour of learning it. And a week later, we'll have forgotten 90%<sup>33</sup> of everything we've learned. In that sense, all learning activities could be characterised as a battle against The Forgetting Curve.

But it's not all bad news. Ebbinghaus was also able to show that every time you reinforce information by repeating it, the rate of decline decreases. Furthermore, this shows us the importance of spaced repetition<sup>34</sup> within a learning context.

## 15. ADDIE

Creating compelling learning experiences requires an effective instructional design approach. ADDIE<sup>35</sup> provides a framework to help instructional designers<sup>36</sup> to structure their learning experiences in the right way. It was first created by the US army back in the 1970s, as a way to guide their own learning programmes. Nowadays, ADDIE is also a common approach within the corporate learning sphere.



As you may have guessed, it's an acronym. It stands for:

- **Analysis:** At this stage, you'll need to analyse the training needs<sup>37</sup>. What are the learning objectives of this intervention? What is your audiences' current competency level? Are there any other considerations you need to keep in mind?
- **Design:** Once the analysis is complete, you can start planning and designing the learning experience. You should keep your learning objectives at the forefront of your mind throughout.
- **Development:** With all that planning out the way, you can now gather your assets and get building. This may take some time, but if you've done your due diligence in the previous steps, it should come together relatively quickly.
- **Implementation:** Now that you've built the learning experience, it's time to share it with your learners. Ensure you have a clear implementation plan and that your learning materials are easy to access.
- **Evaluation:** Finally, you should gather feedback relating to the learning experience. This will help you to evaluate how successful it has been. Take care to determine whether your audience feels the learning objective has been achieved.

## FINAL WORDS

If you're new to the world of learning theories and models, you may well be feeling overwhelmed. There is an endless number of learning theories and models to explore and approaches to consider. It can be difficult to know where to apply your focus.

It is important to understand learning theories and models when designing training programmes. Your training initiatives should incorporate different types of learning objects and events fitting different learning theories and models. This allows learners to fine-tune their development according to their natural way of learning.

Maximum employee learning and experience building improves the effectiveness of human resources, leading to excellence in fulfilling their role in management, marketing or production. This in turn helps to achieve marketing and production objectives, turns strategy into reality and maximises competitiveness and bargaining power.



## REFERENCES

1. [https://books.google.co.uk/books/about/Behaviorism.html?id=rO9WAAAAAYAAJ&redir\\_esc=y](https://books.google.co.uk/books/about/Behaviorism.html?id=rO9WAAAAAYAAJ&redir_esc=y)
2. <https://www.britannica.com/biography/Ivan-Pavlov>
3. <https://www.ncbi.nlm.nih.gov/books/NBK470326/>
4. <https://www.growthengineering.co.uk/gamification/>
5. <https://www.nirandfar.com>
6. <https://www.growthengineering.co.uk/habit-formation/>
7. <https://www.growthengineering.co.uk/how-to-motivate-your-learners-with-rewards/>
8. <https://behaviormodel.org/>
9. <https://www.growthengineering.co.uk/bj-foggs-behavior-model/>
10. <https://earlymoderntexts.com/assets/pdfs/descartes1637.pdf>
11. <https://ajp.psychiatryonline.org/doi/10.1176/ajp.135.8.1010>
12. <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>
13. <https://www.growthengineering.co.uk/what-can-blooms-taxonomy-tell-us-about-online-learning/>
14. <https://www.growthengineering.co.uk/how-to-define-your-learning-objectives/>
15. <https://meridian.allenpress.com/her/article-abstract/38/4/685/30814/Some-Educational-Implications-of-the-Humanistic?redirectedFrom=fulltext>
16. <https://www.simplypsychology.org/maslow.html#gsc.tab=0>
17. <https://www.growthengineering.co.uk/instructional-design/>
18. <https://www.growthengineering.co.uk/self-determination-theory/>
19. <https://www.growthengineering.co.uk/self-determination-theory-confidence-at-work/>
20. <https://www.growthengineering.co.uk/curiosity-in-learning/>
21. <https://www.growthengineering.co.uk/70-20-10-model/>
22. <https://www.ccl.org/articles/leading-effectively-articles/70-20-10-rule/>
23. <https://www.growthengineering.co.uk/%EF%BB%BF%EF%BB%BFwhat-is-formal-learning/>
24. <https://www.growthengineering.co.uk/what-is-informal-learning/>
25. <https://www.growthengineering.co.uk/social-learning/>
26. <https://www.growthengineering.co.uk/what-is-experiential-learning/>
27. [https://openlibrary.org/books/OL5455742M/Psychology\\_and\\_epistemology](https://openlibrary.org/books/OL5455742M/Psychology_and_epistemology)
28. <https://www2.le.ac.uk/departments/doctoralcollege/training/eresources/teaching/theories/kolb>
29. <https://halfanhour.blogspot.com/2007/02/what-connectivism-is.html>
30. <https://www.growthengineering.co.uk/academy-lms/>
31. <https://www.britannica.com/biography/Hermann-Ebbinghaus>
32. <https://www.growthengineering.co.uk/what-is-the-forgetting-curve/>
33. <https://www.growthengineering.co.uk/the-science-behind-forgetfulness/>
34. <https://www.growthengineering.co.uk/combating-forgetfulness/>
35. <https://www.growthengineering.co.uk/what-is-addie/>
36. <https://www.growthengineering.co.uk/instructional-design/>
37. <https://www.growthengineering.co.uk/how-to-do-training-needs-analysis/>
38. <https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/robert-mills-gagne>
39. <https://www.growthengineering.co.uk/gagnes-nine-levels-of-learning/>

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