

learning experience and Teaching aids

Learning experience

A learning experience is a strategic approach to teaching that involves reworking the flow of a curriculum to focus on end goals and objectives. It also emphasizes using multiple teaching methodologies to engage learners of different types. Social participation, collaborative engagement, multimedia games, and other forms of teaching are employed to provide a more holistic experience. There is also greater attention given to the purpose behind the learning of the subject, along with a highly structured pathway to achieving specific goals. Teachers also establish context behind the lessons being taught to their students, which helps create a stronger relationship with the subject. A significant reason behind the growing adoption of learning experiences within academic curricula is the flexibility they offer to teachers across subjects and grades. There are several sources of learning experiences that teachers can leverage to drive the message home for their students. Students that respond better to cooperative learning can acquire knowledge just as quickly as those that prefer visualization-based learning. There are different types of learning experiences that teachers can adapt to their classrooms.

1. Direct learning experiences

Direct learning experiences are impactful for several students that enjoy learning through touch, feel, and other sensory mediums. They can manipulate word cards, mathematics tools, mobile science games, and other touch-based learning mediums and gain knowledge at a faster rate. Teachers can also introduce new tools to leverage when students adapt to existing ones for better performance. In fact, children who play Splash learn more than 4 times a week show a learning improvement of more than 77% within the first 2 months.

2. Indirect learning experiences

Indirect learning experiences are abstracted through accounts, without experiencing them physically. These methods are highly scalable and can include multimedia content, pictorial representations, discussions, debates, workbooks, etc. They can help stimulate a sense of curiosity and learning by empowering the student's creative thinking. Strategies such as verbal

games, thought experiments, role-playing, etc. can help students learn about subjects from a different angle.

3. Individual-level learning experiences

Many students also respond better to learning experiences when studying individually. These students prefer worksheets, written activities, storytelling, and a range of stimulative exercises. These individual-level experiences are critical to leverage, especially when you have a smaller classroom of students that can spend time in an introspective environment. They also respond well to audiobooks, video journals, one-on-one time, and other similar strategies.

4. Group-level learning experiences

Some of the top student-centred learning examples emerge from the concept of group-level learning experiences. Discussions, classroom activities, team-based tasks, and other collaborative initiatives can spark a sense of joy around complex subject areas. Gamification and expressive learning strategies are a core part of the group-level learning experience, which is why it is highly recommended for students in Pre-K through grade 2.

5. Hybrid or blended learning experiences

Hybrid is one of the most effective types of learning experiences, as it focuses on blending various strategies to maximize potential impact. Classrooms are emerging increasingly diverse, digitized, and results oriented. Hybrid methods help engage students across learning types, by involving them in various activities that stimulate creative thinking, social engagement, and knowledge application.

Importance of Learning Experiences for Classroom Success

Students of all ages face challenges in learning concepts that aren't instinctive to them. Introducing learning experiences can open their cognitive horizon to more complex-level thinking. Activities, such as field trips, group discussions, role-playing, experimenting, and creative expression, can bring out the complete potential of a student and boost their in-school performance.

1. Making students fall in love with a subject

Students also tend to enjoy learning about a subject if it is taught in a non-traditional and interactive way. While this may be cumbersome to execute for each topic, a general subject can be taught with learning experiences integrated into the course. E.g., when teaching word problems to 5th graders, teachers can use props, games, animations, and cut-outs, to help break down a problem into simpler concepts.

2. The best approach for home-schooling

Kids that are home-schooled prefer learning through multiple mediums that can expand their way of thinking about a problem statement. Through a blend of technology and paper-based tools, students can be taught difficult subjects in a much easier way. A great example of this is using puppets, memory cards, games, and other interactive mediums to teach younger kids about counting and addition.

3. Teaching how the student wants to learn

Why are learning experiences so good at explaining topics? It is because they help teach students the way they want to be taught. Some kids prefer reading while others learn through puzzles. Embedding learning experiences in the curriculum allows all students to learn the way they want to learn without feeling left out of the momentum of the session. Ultimately, the student benefits immensely as they are being stimulated through multiple mediums.

4. Extended attention long-term: Teachers that are using traditional methods of explanation and query resolution will find learning experiences refreshing. Through different activities, exercises, and thought experiments, students focus on the task-at-hand much longer and they are more stimulated than passive reading. They are highly engaged in context-rich learning exercises, which improves their attention duration significantly.

Edgar Dale's Cone of Experience

It helps L&D professionals to plan learning experiences that take advantage of the most effective learning environments. This 11-stage model places multimedia elements into categories based on their 'concreteness'. This is the multimedia asset's ability to stave off

abstractness and capture reality with varying degrees of veracity. In a nutshell, Dale's Cone of Experience showcases how we can use a variety of materials and mediums to maximise learner experiences. Known in some circles as the 'Learning Pyramid', Dale's Cone of Experience is one of the most misrepresented learning theories. But before we clear up the misconceptions, let's take a step back and learn more about Edgar Dale, the father of the Cone of Experience.

The Cone of Experience

In his first edition of *Audiovisual Methods in Teaching* (1946), Dale introduced the 'Cone of Experience'. The Cone placed different educational media and methods in a continuum from the most concrete experiences at the bottom to the most abstract at the top.

When a learner moves from direct and purposeful experiences to verbal symbols, the degree of abstraction gradually grows. And as a result, learners become spectators rather than participants.

Learners can see, handle, taste, touch, feel and smell the most purposeful experiences. By contrast, verbal symbols, such as use of words, speech or auditory language, at the peak of the Cone are highly abstract. This means they do not have a physical resemblance to the objects or ideas in question. As such, the Cone of Experience explains the interrelationships of the various types of media and their individual 'positions' in the learning process. This makes it a valuable tool that helps instructional designers and L&D professionals incorporate the right audiovisual materials into their classroom or online training interventions. However, Dale's Cone of Experience has been widely misrepresented. Let's have a look at the common misconceptions!

Common Misconceptions: -

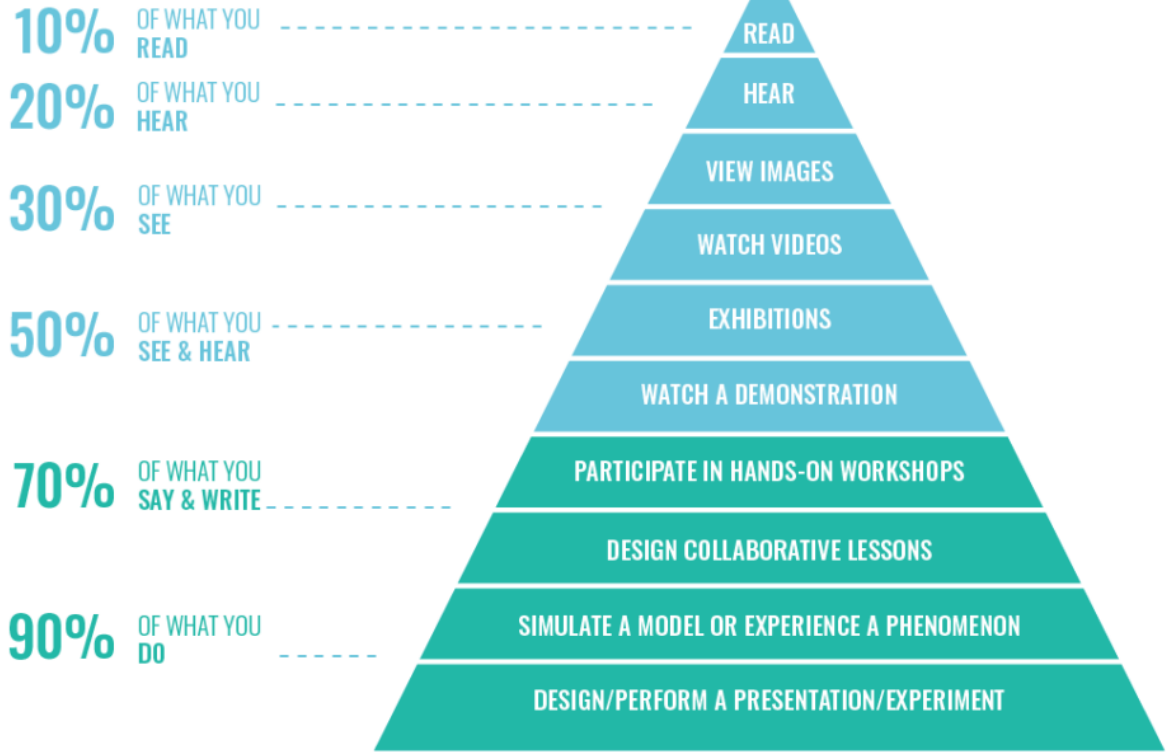
Dale intended to produce an intuitive model of the concreteness of various kinds of audiovisual media. However, the model has been widely and frequently misunderstood and misused. The Cone is often wrongly referred to as the 'Cone of Learning', 'Learning Pyramid' or 'Remembering Cone'. What some refer to as the 'corrupted cone' is now widely misunderstood as Dale's Cone of Experience.

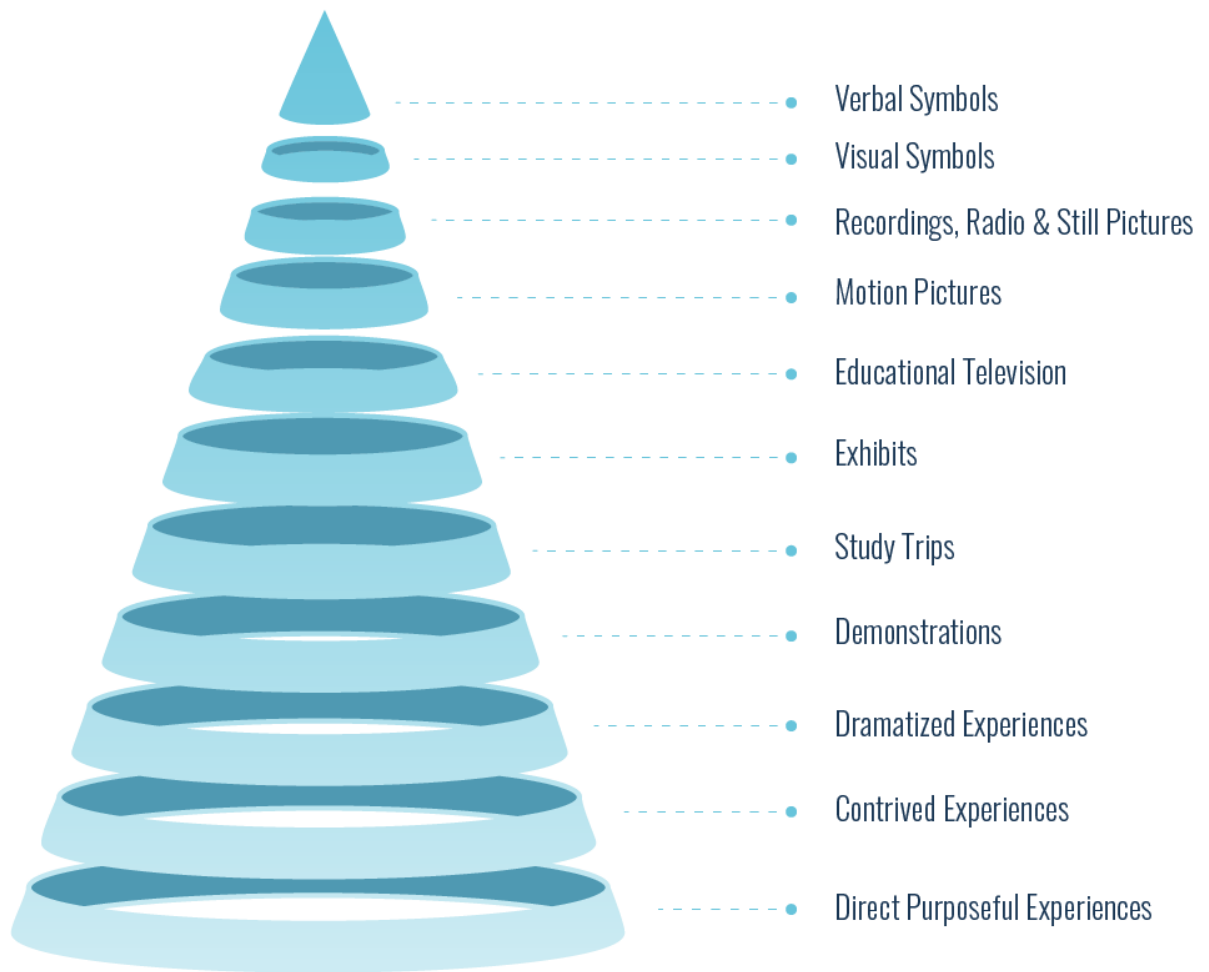
Let's play a game of spot the difference. The illustration directly below is what most share as the 'Cone of Experience'. You've probably seen it before, on social media, or in an article

about effective learning approaches. The Cone below that, on the other hand, represents the levels Edgar Dale introduced in his original model.



YOU REMEMBER





Mythical Retention Scores

As we can see from the illustrations, the corrupted model purports to inform learners of how much people remember based on how they receive information. According to it, learners generally remember:

- **10%** of what they read.
- **20%** of what they hear.
- **30%** of what they see.
- **50%** of what they hear and see.
- **70%** of what they say and write.
- And **90%** of what do.

Suspiciously round numbers, no? But when you compare the corrupted model to Dale's actual Cone of Experience, you notice that Dale did not include any numbers or percentages.

In fact, Dale never mentioned the relationship between the level of the Cone and the learners' level of recall. Instead, he simply used the shape to convey the gradual loss of sensory information in learning interventions.

Still, many educators and learning professionals mistakenly believe that the bogus cone is Dale's work. And it's no wonder why! A quick Google search reveals an astonishing number of incorrect attributions.

As such, it doesn't come as a surprise that these magical retention percentages can be seen to fluctuate significantly. After all, this retention data is not supported by empirical data.

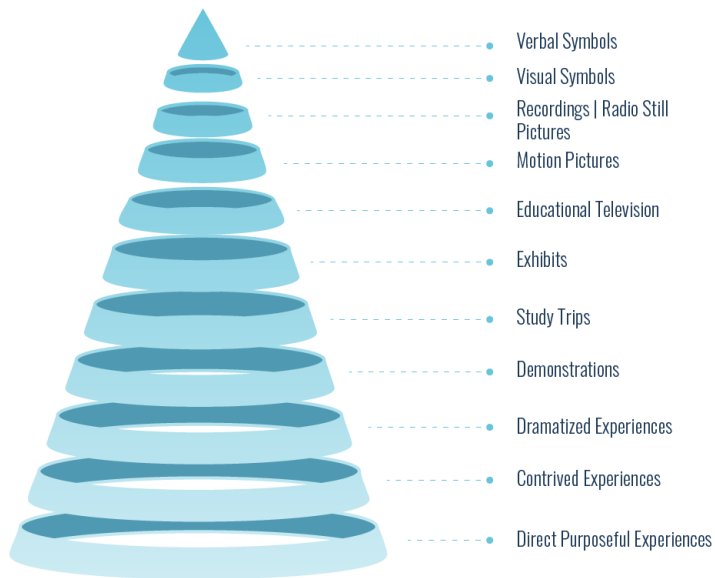
Misunderstood Application

On top of these mystical retention percentages, Dale's Cone of Experience has been misapplied for decades. For instance, some interpret the model as suggesting that direct learning experiences are inherently better than the more abstract audiovisual experiences offered at the top of the cone.

But this is far from how Dale intended his Cone to be used. In his 1969 edition of *Audiovisual Methods in Teaching*, Dale notes that the Cone is merely a visual analogy. It shows the progression of learning experiences from the concrete to the abstract.

The shape had nothing to do with deciding that one kind of experience is better than another. It is not a hierarchy of learning efficiency. In fact, Dale even explained that too much reliance on concrete experience may actually obstruct the process of meaningful generalisation.

And on top of all that, Dale actually advised his readers not to take the cone too literally in the first place! He intended the Cone to be a descriptive model, instead of a roadmap for lesson or training planning.



The Cone Uncorrupted

Now that we have overcome some of the misconceptions, let's have a look at the eleven levels of Dale's authentic Cone of Experience.

The base of the model is characterised by more concrete experiences. These include direct experiences, contrived experiences and dramatic participation.

The middle of the Cone is slightly more abstract, where learners observe without action. These experiences are less concrete than the lower levels, as learners do not interact directly with the phenomenon.

The peak of the Cone displays the most abstract experiences, which are represented with limited degrees of realism by symbols. These include visual and verbal symbols, like listening to the spoken word.

As such, the arrangement of the levels in the Cone is not based on its difficulty. Instead, it focuses on abstraction and the number of senses involved. Instructional designers can mix and interrelate these experiences to foster more meaningful learning.

Let's have a look at each level individually, working our way down the Cone!

11. Verbal Symbols

As explored, each level of the Cone moves the learner a step further away from real-life experiences. As such, experiences focusing only on the use of verbal symbols are the furthest removed from real life.

Verbal symbols are highly abstract as they bear no physical resemblance to the objects or ideas they stand for. In fact, these verbal symbols provide no visual representation or clues to their meaning.

Dale used the word 'horse' to illustrate this. Writing the word 'horse' does not look like a horse, sound like a horse or feel like a horse. In fact, the letters H-O-R-S-E don't look, sound, smell, taste, or feel anything like the actual animal.

This is true, regardless of the language you use. For instance, you spell a horse as 'hevonen' in Finnish, 'cheval' in French or 'hest' in Danish. Fun words, no doubt, but none of them resemble the animal itself. Instead, they share a common meaning that native speakers often learn at a very young age.

10. Visual Symbols

The other highly abstract level includes visual symbols, such as charts, maps, graphs and diagrams that are used for conceptual representation. These visual symbols help to make just about any reality into something easier to understand.

In fact, from sports team logos to traffic signs, we see symbols everywhere. These symbols help people understand the world. Just as with verbal symbols, visual symbols help drive understanding by conveying a meaning that is shared by the rest of society.

Visual symbols often include simple illustrations that do not include any unnecessary detail. This makes them relatively easy to procure and prepare. And that's what every instructional designer wants to hear, right?

9. Recordings, Radio and Still Pictures

Edgar Dale first created this model in 1946. As such, he included the multimedia assets of his time, such as recordings, radio and still pictures. In more modern terms, this level could include photos, podcasts or audio files.

If you go back to the ‘corrupted cone’, one of the common misrepresentations treats ‘seeing’ as more effective than ‘hearing’.

Yet, Dale placed visual and auditory media on a similar level of abstraction. After all, in both cases, you are merely observing visual symbols (like still photos) or verbal symbols (like audio recordings). Neither example actively asks anything of the learner.

8. Motion Pictures and 7. Educational Television

Most recent publications combine levels eight and seven into one category. After all, motion pictures and television are similar mediums. They enable learners to process real-life processes or events through on-screen recordings.

Motion pictures and educational television include, for example, videos, animations and tv programmes, which imply value and messages through moving pictures. These are abstract experiences, as learners focus on observation instead of active participation.

As a result, learners have little or no opportunity to participate in or use senses other than seeing and hearing. But while streaming experiences can’t recreate the richness of reality, videos do present an on-screen abstraction of real-life processes and events.

In fact, videos are effective for presenting movement and continuity of ideas. You could even say that motion pictures and television provide a ‘window to the world’.

This has benefits when it comes to using videos in training. After all, you can edit out any irrelevant parts, zoom in on details, highlight information, or slow things down to provide focus. Learners can also rewind and replay the video as many times as they need to.

However, there is much controversy surrounding the benefits and disadvantages of television and motion pictures. Yet, research shows that educational programmes can enhance children’s intellectual development and provide experiences that are otherwise unreachable.

6. Exhibits

The sixth level of Dale's Cone of Experience moves us away from the most abstract experiences. This is the first level that opens the door for an expanded range of sensory and participatory experiences.

In fact, this level can be summarised as meaningful displays with limited handling. After all, most exhibits are experiences that are for the eyes only. Yet, some exhibits include sensory elements that can be related to direct purposeful experiences. These exhibits are specifically designed for interactivity.

As a result, this experience allows learners to see the meaning and relevance of things based on the different pictures and representations presented. Visiting exhibits in educational outlets like museums are a common way to provide learning opportunities.

After all, exhibits are a great way to present students with exposure to new ideas, discoveries and inventions that would be more difficult to display in a classroom setting.

5. Study Trips

Study trips offer the sights and sounds of real-world settings. The main activity focuses on observing from the sidelines, aside from occasional opportunities to participate. Participation could include, for instance, hopping in a fire truck or milking a cow.

These rich experiences help learners to learn more about different objects, systems and situations. As such, study trips provide an opportunity to experience something that learners cannot be encounter within the traditional classroom space.

Similarly, field trips expand the social learning opportunities provided by online learning. As a result, the learning experience is not limited to the traditional training setting but rather extended to a more complex environment.

The effectiveness of field trips has been researched extensively. They are well regarded, given how easy it is to provide every student with the same real-life experience.

In addition, students can see connections between their training experiences and the ‘real world’. This type of elaboration is known to be an effective learning technique.

4. Demonstrations

A demonstration is a visualised explanation of facts, ideas or processes. They are a common way to train employees or students, as they require relatively little preparation and resources. After all, individuals observe a lot simply by watching others.

On top of that, demonstrations can include pictures, drawings, film and other types of media in order to facilitate clear and effective learning. This approach helps to showcase how individuals can complete these tasks in real life.

Like exhibits and field trips, demonstrations may or may not include an element of participation. As such, demonstrations sit in the middle of the Cone based on their abstraction.

Demonstrations are especially useful if a hands-on activity is logistically unfeasible. However, demonstrations don’t come without limitations! Learners may not interpret or conceive the information as well as intended. Other factors affect the learning experience too. For instance, some learners may have worse visibility of the demonstration.

Similarly, demonstrations alone may not be enough in all learning situations. After all, seeing how a task is done is rarely as good as trying to do it ourselves.

3. Dramatized Experiences

Dramatized experiences can be seen as role-play exercises. This means reconstructing situations for learning purposes. As a result, the third level involves shifting learners — at least some of them — from observers to active participants.

This enables learners to participate in reconstructed experiences that could give them a better understanding of the idea or concept. In this manner, dramatizing real-life experiences can help learners to get closer to certain realities that are not easily available first-hand.

They also provide a safe environment for experimentation. For instance, it’s much better to fail in a sales negotiation role-play than it is to fail in real life.

Learners can become more familiar with the concepts as they emerge themselves into the “as-if” situation. Similarly, learners can observe their peers to take their learning even further! This enables them to compare what they may have done differently.

2. Contrived Experiences: - The second level is called contrived experiences, which focuses on the ‘editing’ of reality. At this level, teachers use representative models and mock-ups to provide an experience that is as close to reality as possible.

This can make the concept easier to grasp. After all, some realities are far too complex to take in all at once. As such, contrived experiences are imitations that sometimes teach better than the realities they imitate.

Contrived experiences are very practical and make the learning experience more accessible. After all, they have a concrete nature that permits easy visualization and helps to foster a better understanding of the concept at hand. And on top of all that, contrived experiences are easier to manipulate or operate!

1. Direct Purposeful Experiences

The bottom level of Dale’s Cone of Experience is also the least abstract. Direct purposeful experiences are hands-on activities that grant us responsibility for driving a specific outcome. We are active agents in the learning experience. In a sense, direct purposeful experiences are an unabridged version of life itself.

These rich, full-bodied experiences can be considered the bedrock of all education. After all, learners can see, handle, taste, feel, touch and smell these experiences. As such, at this level, learners use more senses in order to build up their knowledge.

Learners learn by doing tasks themselves. As a result, learning happens through actual hands-on experiences.

The Relevance of Cone of Experience

The Cone of Experience was first created decades ago, in 1946. And even decades after his passing, Dale’s work continues to influence the educational technologies field. Its utility in

selecting instructional resources and activities is just as practical today as when Dale created the Cone.

The Cone has also inspired the birth of other models. For instance, Baukal et al. (2013) built upon Dale's ideas and created the Multimedia Cone of Abstraction.

Even though Dale himself recommended not to take the model too seriously, it does guide us in creating effective learning environments.

The Cone in Learning and Development

In his 1969 version of *Audiovisual Methods in Teaching*, Dale introduced 'rich experiences'. According to Dale, effective learning environments should offer memorable and rich experiences where learners can use multiple senses. He characterised rich experiences as follow:

- Students use their eyes, ears, noses, mouths and hands to explore and immerse the experience.
- Learners have the chance to discover new experiences.
- Training events are emotionally rewarding and will motivate participants to continue learning throughout their lives.
- Students can reflect on their past experiences to create new experiences.
- Learners get a sense of personal achievement.
- And students can create their own dynamic experiences.

As such, it is clear that no one level of Dale's Cone of Experience is sufficient to generate a 'rich' learning experience. Instructional designers should focus on creating memorable learning experiences where learners can see, hear, taste, touch and try.

Furthermore, we need to take advantage of other media. If all mediums are beneficial for your learners, you can combine as many as you wish.

Learning Strategies

Dale thought that the school system forced students to memorise information instead of learning how to think or solve real problems. Unfortunately, the current school system has been criticised for adopting the same approach.

For this reason, Dale argued that we should use revolutionary approaches to improve the quality of educational learning environments. One way to do this is to introduce a range of audiovisual materials to create vivid and memorable learning experiences. Like Dale (1969, p. 23) describes:

“Thus, through the skillful use of radio, audio recording, television, video recording, painting, line drawing, motion picture, photograph, model, exhibit, poster, we can bring the world to the classroom. We can make the past come alive either by reconstructing it or by using records of the past.”

In other words, instructional designers must implement learning strategies fuelled by interaction. They can do so by introducing modern learning techniques. In fact, a growing body of research shows that training interventions that use well-designed multimedia content are more effective than those that don't. Text only learning interventions could soon be a thing of the past. Indeed, to get the best results, instructional designers should mix approaches, balancing concrete and abstract experiences. This helps them to cater to and address all learner needs in order to help each learner in their learning journey.

Luckily, current learning technology makes this easier than ever before! Growth Engineering LMS, for instance, lets you use a variety of content types to build your training plan. This empowers you to create rich experiences.

This can range from your regular PDFs and slideshows to video and audio files, not to forget virtual classroom sessions and informal learning opportunities. In fact, innovative social learning features ensure learners can discover and create their own dynamic experiences.

Gamification, on the other hand, helps learners to get a sense of personal achievement as they accrue Experience Points (XP) or climb up the Leaderboard. Gamification is also utilised for the most immersive learning strategies, whereby learners physically participate in their training content. This resembles real-life situations and processes.

In addition, some of our modern forms of multimedia were not available when Dale created his Cone of Experience. For instance, virtual reality and augmented reality are relatively new additions to training. These inventions have the potential to showcase extremely realistic simulations that help to create contrived learning experiences.

Similarly, some of the elements in Dale's Cone, like educational television, are not as relevant today as they were when Dale first created his model. But according to recent research, one could easily update the Cone to tally harmoniously with modern technology.

However, while these assets and approaches help you to create rich training experiences, it's essential to get the balance right. As such, you should vary your content formats and broader concepts to facilitate effective and meaningful learning.

Conclusion

Dale's Cone of Experience is a wildly misunderstood model. Despite this, it remains useful even for today's weathered instructional designers. After all, it showcases how we can use a variety of materials and mediums to maximise learner experiences. It also helps us to think about the sensory impact of our learning content. Still, if you only take away one thing from this article, let it be this: don't go around telling people that you only remember 10% of what you read!

Teaching Aids:-Teaching students in an effective way plays a vital role in student development. At the age where students are most likely to get distracted, grabbing their attention towards learning becomes a bit challenging. This is where different types of teaching aids get into the picture. It helps students to learn attentively and focus more on their studies. The different types of teaching aids help to leverage students' education and improve their understanding.

Students may find it boring listening to long lectures, and there are more possibilities for them to get distracted. However, incorporating the right teaching aid ideas will make your students more interested in paying attention. There are different types of teaching aids that suit different teaching methods. By implementing the appropriate teaching strategy, teachers can help their students to observe most of their textbook concepts. This blog will look at the different types of teaching aids and their importance. Teaching aids facilitate the learning of

students in various ways. Teachers use different teaching aids to make their students listen attentively and interestingly. The traditional teaching aids involve the usage of blackboards, posters, globes, charts, textbooks, etc. However, as technology grows, teaching aids have also improved a lot, and today's teaching aids are classified into audio aids, visual aids, mechanical teaching aids, audio-visual aids, and more.

Types of Teaching Aids:- Teaching aids can be classified in different ways. The most common types of teaching aids are:-

Visual Aids:-Visual aids include teaching by means of visuals. To improve clarity, teachers rely on visual aids for teaching and use materials like graphs, charts, projectors, models, and diagrams. For instance, teachers can demonstrate the different kinds of shapes by using large blocks of shapes in their hands to students of smaller grades. There are many tools using which teachers can create training videos for online teaching purposes. Nowadays, teaching and learning are shifted online, and here visual aids refer to presentation slides, pictures, etc. Visual aids help students in grabbing concepts easily, and they are clearer and more understandable than textbooks. Visual aids not only involve solid materials or pictures to learn, but it also involves taking your students to museums, factories, and places where students can earn knowledge. For example, using slides with attractive images and demonstrative videos as visual aids in the online classroom helps students to learn interestingly and effectively.

Audio aids :-Audio aids help a lot in learning languages where communication and listening are important. Auditory learning makes the students develop their listening skills. It may involve playing a paragraph in audio, making your students listen to it and answer your questions, or playing some calm music in your classroom to make your students feel relieved and more. Nowadays, we can see everything visually. But there are some ways where we can only listen to audio. By listening to the radio, students can improve their listening and understanding skills. Since audio has a positive effect on brain development, it is greatly helpful for your students to learn attentively.

Audio-visual aids: - Audio-visual aids involve the usage of videos, films, documentaries, etc., to enhance the process of teaching. Sometimes students may find it difficult if you demonstrate everything by using words or images. They would find it easier when they watch it live. For example, if you teach the germination of the seed process through words, they won't find it very interesting. Instead, if you show them an animated video of how the seeds germinate and how a plant grows from seed by demonstrating it step by step, they will be more interested to learn that topic. Usage of audio-visuals provides them with a live experience of learning and makes them understand everything better. Audio-visual aids also involve the usage of computers to teach. Almost every school nowadays has computers, and they help a lot for the students to learn using technologies at a very young age.

Importance of teaching Aids:- Teachers make use of various types of teaching methods to elevate the process of teaching in an easier way. Teaching aids can even make difficult subjects look easier. Apart from using only textbooks, the usage of various aids will make your students more interested in learning. Teaching is successful only if students are learning effectively. Teaching aids play major role in making learning real. Below are some points which describe the importance of teaching aids.

Helps to remember concepts:- Students who tend to forget the concepts easily will benefit from the usage of teaching aids. When teaching aids are used, teachers not only define everything orally, but they use practical methods to make students understand better, such as models, graphs, etc. Teaching aids also make learning more interesting, and students tend to remember the concepts longer if they learn them with interest.

Effective demonstration:- There might be some topics that cannot be taught only using words and textbooks. They might need some effective ways to get demonstrated deeper. Those kinds of topics can be easily taught by using teaching aids. For example, teaching human anatomy only using a blackboard and chalk would not feel much easier for students to understand. However, using a 3D model or animated video that demonstrates human anatomy will grab students' attention and help them understand effectively.

Complex concepts become easier to learn:- Students sometimes skip topics that are harder to understand and learn. No matter how many times they study, some topics may feel complicated

for them. Such topics can be easily taught using the appropriate teaching aids. Teaching aids help them to understand complex concepts in a faster way, and they no longer skip topics from studying.

Improves thinking skills:-Using teaching aids teachers can develop thinking skills in students'. Instead of assuming something in their mind, students can actually see and understand how an experiment is performed, for example. They could understand everything straight and think about implementing the concepts practically. When students start to understand clearly, they will become more curious and eventually develop their creativity skills.

Adopting innovation in education: -As teachers and students love innovation in learning, they won't find classrooms boring anymore because of the usage of various teaching aids. Adopting the right teaching methods and strategies enhances the learning experience of students, and they will get to know that education is something beyond reading textbooks and remembering concepts.

Conclusion:-Teaching aids help a lot to make learning attractive. Instead of relying only on textbooks and blackboards for teaching, teachers should make use of other interesting teaching aids to encourage their students. Nowadays, technology helps a lot in making learning easier, and it has introduced a lot of new teaching aids which assist the process of teaching.

