# THE DEVELOPMENT OF AN EFFECTIVE AND EXPERIENTIAL PRESENTATION IN OCCUPATIONAL THERAPY

A thesis submitted to the faculty at Stanbridge University in partial fulfillment of the

requirements for the degree of Master of Science in Occupational Therapy

by

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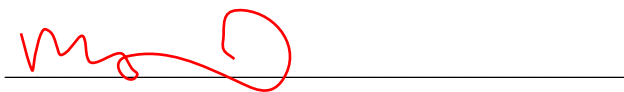
June 2023

**Certification of Approval**

I certify that I have read *The Development of an Effective and Experiential Presentation in Occupational Therapy* by Patricia Adeogun, Maegan Casillas, Danielle Festejo, and Emily Krakower, and in my opinion this work meets the criteria for approving a thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Occupational Therapy at Stanbridge University.

Annette Hatala, OTD, OTR/L

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**Abstract**

Occupational therapy (OT) students can greatly benefit from learning effective presentation skills. This study examined the current research by conducting a literature review to determine evidence-based techniques and strategies that are effective in audience comprehension, retention, and application. The common themes we found throughout the literature were: the science behind learning, the development of visual aids to support the presenter's message, and methods to enhance a presentation. To assist occupational therapists further we created a handbook that contains tips for the construction of an appealing presentation, evidence-based explanations of sensory pathways used for learning, and the proper use of both verbal and nonverbal tactics.

## Table of Contents

**The Development of an Effective and Experiential Presentation in Occupational**

**Therapy**

In today's fast-paced and information-driven world, the ability to deliver effective presentations plays a vital role in professional and academic settings. The field of occupational therapy (OT) can incorporate a wealth of unique knowledge and expertise towards the development of an effective presentation to reach and impact a diverse range of audiences. Whether speaking with a client or on a conference stage, utilizing evidence-based strategies and techniques in interpersonal communication can influence the way a listener perceives and applies the information presented. Whether it be speaking with a client or on a national conference stage, utilizing evidence-based strategies and techniques in interpersonal communication can make a difference in the way a listener perceives and applies the information presented.

In an article exploring a backwards design method, Corwin et al. (2018) build on the development of effective presentation skills by emphasizing the importance of first establishing clear goals and objectives for both the presenter and the audience before diving into the creation of content and activities for the presentation. Much like working with a client on their interventions, occupational therapists can ensure that their presentations are purposeful, engaging, and effectively tailored to meet the needs of their specific audience by starting with the end goal in mind.

After reviewing ten occupational therapy schools' curriculum we found that none included any form of educational courses on effective presentation skills. While each university has a class that could potentially teach these necessary skills such as "Communication Skills for Effective Practice" at University of Southern California or

"Health Promotion and Wellness" at Samuel Merritt University, these classes do not fully provide the effective teachings that our study aims to present (Samuel Merritt University, 2023; University of Southern California, 2023). In addition, many of the US-based OT programs we reviewed didn't offer any communication or presentation skills courses in their curriculum at all (Boston University, 2023; Dominican University of California, 2023; Keuka College, 2023; Loma Linda University, 2023; Thomas Jefferson University, 2023; University of St. Augustine for Health Sciences, 2023; University of Washington, 2023; West Coast University, 2023). These skills are vital in settings such as community outreach programs, educating families on patient care, as well as enhancing the field of occupational therapy through presenting at national conferences.

Equipping occupational therapists and occupational therapy students with the necessary tools they need to develop an effective presentation could potentially provide students and professionals the confidence they need to present valuable information at conventions, such as the American Occupational Therapy Association (AOTA) or the Occupational Therapy Association of California, or even make a difference in their communities by speaking to allied healthcare professionals, legislators and policymakers. The AOTA's (n.d.) mission is to advance OT practice through advocacy on behalf of its members, the profession, and the public. Advocacy is a key component to the profession of occupational therapy, as it provides an avenue for individuals to use their voice to make a difference. Practitioners can spread the value of occupational therapy by using a variety of effective presentation techniques. In this study, we reviewed relevant research and then created a handbook containing guidance for the construction of appealing

presentations, explanations of experiential learning and sensory pathways used for learning, as well as the proper use of nonverbal tactics.

## Literature Review

We examined research that highlighted the key components presenters should take into consideration when creating a presentation in order to support the brain in absorbing information for higher audience retention. Then, we looked at how the components of experiential learning and the use of nonverbal communication all relate to developing an effective presentation. We then used this research to help develop a handbook to guide future occupational therapists in enhancing their presentation skills.

### The Science Behind Learning

Noushad and Kurshid (2019) emphasize the importance of memory and active learning of the individuals that teachers and those in health care professions cater towards. This shows that occupational therapy should also take into consideration the science behind learning when developing and delivering presentations, whether it be to patients or other health care professionals. Through our research, we found that sensory pathways in the brain have a major impact on the way we learn. Daniel et al. (2018) explain that there are essentially two sensory pathway channels to process sensory information. Visual stimuli are processed through one channel, and language (verbal and written text) is processed through the second. When both written and spoken text are being conveyed at the same time, the message can become disjointed because the one channel is trying to process too much information at one time. For example, if a presenter is reading directly from the slides, the spoken word is competing with the written text through the same channel. This ultimately presents challenges to the audience in terms of

their ability to easily process and retain the information being delivered. Therefore, information can best be processed when appealing to both channels of visual and language. This is best explained by using a graphic or minimal words on a slide paired with the presenter verbally explaining the visual content. In an academic setting, concerns may arise when students need to cross-reference for information, which can lead presenters to use excessive amounts of text on a slide. To address this concern, a handout, study guide, or additional materials could be provided for the students to refer to and review after the presentation has been given. Combining the language and visual stimuli will spark the working memory, which will complement the impact of the learning process (Daniel et al., 2018). In describing the sensory pathways involved in learning, Daniel et al. (2018) also emphasize the importance of understanding the cognitive load theory.

Leppink and van den Heuvel (2015) continue to examine the cognitive load theory in greater detail in their research. The cognitive load theory utilizes the process of learning new information and knowledge that has been stored and organized into long-term memory, which then results in a more elaborate and extensive skill. The theory breaks down two concepts: intrinsic cognitive load and extraneous load. Intrinsic load can be best known as the most important pieces of information needed for developing a memory. On the other hand, extraneous load contains the "non-essential" information that detracts from what needs to be known. Ultimately, the goal for improving information comprehension is to reduce the amount of extraneous cognitive load and then enhance the intrinsic cognitive load that the participants are subject to (Daniel et al., 2018). Leppink and Heuvel provide three strategies to aid in developing intrinsic

cognitive load: first, utilizing progressions of the task by gradually making the task harder as mastery is achieved; second, gradually increasing the likelihood of the task completion, such as moving from research or reading text, to practicing on a simulated object, to then working with the real task; and finally, creating assessments that properly measure intended outcomes. The cognitive load theory helps in designing presentation lectures in ways that align with those concepts to help ensure adequate audience comprehension (Noushad & Khurshid, 2019).

**Presentation Design**

The multimedia learning theory is a guideline that provides principles for developing an effective presentation. The pre-training principle states that participants absorb information better when the topics that are going to be covered are mentioned before, so having a statement of objectives or table of contents would suffice as a slide towards the beginning of the presentation (Corwin et al., 2018). The coherence principle, as explained by Grech (2018), states that the less amount of content that is on a slide, the easier that slide is to understand. Daniel et al. (2018) and Anderson (2015) also discuss minimizing extraneous load and make the comment that, "less is more," when putting text on slides. The modality principle paired with the multimedia principle enforces the idea that the visuals on slides should reinforce the intended message. The most effective way of presenting, according to these principles, is when the visuals on the slide are coupled with verbal explanations (Grech, 2018; Daniel et al., 2018). Likewise, this could be done with graphics to support what the presenter is explaining (Daniel et al., 2018).

An important factor to note is that visual aids should supplement a presentation, not replace a presentation (Grech, 2018). Daniel et al. (2018) recommends against using

busy backgrounds. The addition of audio and animation should not be distracting, and should be used to better engage the audience, or to prove a point (Anderson, 2015; Daniel et al., 2018). Slides should be short, clean, and easy to read (Grech, 2018; Daniel et al., 2018). Grech (2018) explains that text should all be the same color, unless the color change is used to emphasize a point, which, in that case, bold text could be used. When discussing the visuals of the text on slides, avoid eye strain for the audience and make sure that the text has plenty of contrast, making it easy to read. If pictures are used on the slides, be sure to avoid copyright, ensuring also that there are high-quality photos that are relevant to the topic (Anderson, 2015; Daniel et al., 2018).

**Experiential Learning**

Kolb and Kolb (2017) review the concept of experiential learning, which is a concept that was more commonly studied by scholars around the end of the nineteenth century. Experiential learning theory focuses on learning from experience, which has many levels and is a large focus of adult development, which carries a strong implication for the field of OT. Due to the holistic nature of experiential learning, occupational therapists can use this method to allow individuals to use those learning opportunities to make decisions based on what they have learned.

Daniel et al. (2018) give examples of active learning techniques which, among the list, includes experiential learning. The experiential learning cycle, according to Kolb and Kolb (2017), is the process in which an individual has an experience, grasps the concept, then transforms their thinking and actions based on that concept. This is broken up into a four-step process: concrete experience, abstract conceptualization, reflective observation, and active experimentation. As described by Nauman (2022), a concrete experience is

better understood as a time in which an individual is able to solve their day-to-day challenges from their individual experiences. Abstract conceptualization is a result of the rumination of an individual's experiences. Reflective observation, otherwise known as observing, is described as reflecting on the experience. Active experimentation, or doing, is the process of applying what is learned by making changes in the moment.

Poulimenakou and Sarris (2023) also emphasize the importance of experiential learning as a teaching method due to its unique characteristics. Experiential learning enables the imagination of the individuals as well as the exploration of their own personal beliefs. When participating in experiential learning, individuals will develop more empathetic and individualistic communication skills. Through this experience, participants also worked on conflict resolution and a more inclusive thought process of diversity. It was concluded that experiential learning for self-care can develop more positive practitioner-patient relationships. The study conducted by Poulimenakou and Sarris played into the theatrical side of experiential learning. Participants in the study stated that vital skills that will be translated into practice, such as empathy, thinking on the spot, and verbal and non-verbal communication were developed. Daniel et al. (2018) encourage the use of experiential learning techniques, such as combining simulations and presentations in the same lesson.

**Nonverbal Communication**

Equally as important for the development of an effective presentation is the use of nonverbal communication (Daniel et al., 2018). This form of communication includes the transfer of information using eye contact, hand gestures and tone. Proper application of this skill enhances the overall delivery to audience members and the way the information

presented is perceived. Psychologists have studied the role of nonverbal communication in areas such as education, relationships, businesses and workplace environments to explain how it influences perception, empathy, rapport, and power. Bambaeeroo and Shokrpour (2017) examined the impact of the teachers' use of non-verbal communication on success in teaching and found that there was a significant and positive relationship between academic staff's nonverbal communication and a students' academic success. This may be due to the fact that an individual is proven to learn at a higher rate when the speaker maintains a friendly voice rather than a monotone tone (Grech, 2018). These results indicate that tone is an important component to consider when educating others.

Eye contact and gestures can elicit a sense of involvement where the presenter can build a foundation of rapport and personal connection with their audience (Daniel et al., 2018). This form of communication relates to the holistic approach that occupational therapists are familiar with by taking into consideration the whole presentation and examining it from different contexts to pinpoint areas that cater towards participants' engagement. Taking a moment to pause during a speech can aid in emphasizing a point, taking a moment to recollect a thought, or to ask a question to ensure audience comprehension (Daniel et al., 2018). Turning one's back to the audience nonverbally tells the audience that their attention is not needed or important, especially when attempting to read straight from the screen (Daniel et al., 2018). This can be avoided by following the recommendations on slide design. Moving around the room or across the stage demonstrates presenter engagement and can be utilized to emphasize certain points or a change in topic keeping the audience alert by having to follow with eye gaze. The utilization of body language that expresses confidence can convey expertise on the

presentation at hand (Daniel et al., 2018). By utilizing the therapeutic use of self while presenting, one can use those pauses, hand gestures, movement around the room, and eye contact to keep their audience engaged.

## Statement of Purpose

The goal of this study is to enrich occupational therapists with effective presentation skills through evidence-based research and experiential learning. After examining the research on the science behind learning, slide design, experiential learning, and nonverbal communication we applied our findings to a handbook. From an OT standpoint, effective presentation skills will teach OT practitioners ways to present an information dense topic while simultaneously taking audience comprehension and engagement into consideration through the process of experiential learning. As the OT profession continues to grow and evolve it is important that ideas and new research are shared in ways that are understandable and retainable in order to transfer knowledge into clinical practice settings.

## Theoretical Framework

The Person, Environment, Occupation theoretical framework is a model that is relevant to this study. This framework theorizes the interaction occurring between the three components, and when they align with one another meaningful participation increases. The Person, Environment, and Occupation model is a powerful tool when learning and reapproaching the skills needed to develop effective presentation skills.

As described by Gal et al. (2020), an individual's environmental context may influence their performance. An individual's participation in functional tasks and activities, such as learning, increases as the fit between the person, the environment, and

the occupation improves. Therefore, indicating a change in any component of the person-environment interaction may affect the individual's occupational performance, consequently creating an optimal environment for learning. By incorporating the person, the environment, and the occupation of each of our participants, a holistic approach can be taken to enhance and create a conducive learning environment. This holistic perspective allows for a personalized learning approach, therefore optimizing the participant's overall learning outcomes.

## Methodology

Utilizing a literature review approach, we researched some of the ways that scholars, practitioners and experts have identified effective experiential presentation skills in an OT environment. We searched articles in this field using keywords such as presentation, verbal communication, non-verbal communication, and experiential learning. Through this review, data was extracted quantitatively and qualitatively from relevant scientific articles to provide information associated with effective presentation skills. The inclusion and exclusion criteria were determined prior to implementing the search. Articles were included if they were written in the last 10 years and exclusion criteria included articles and websites that demonstrated bias or non-evidence-based literature. Also excluded were articles not written in English.

## Ethical and Legal Considerations

This thesis was project-based and did not involve human subjects, not requiring Institutional Review Board approval. In addition, we want to disclose that our thesis advisor has presented at the Occupational Therapy Association of California and the American Occupational Therapy Association. As part of our program, ethical practices

were considered by consulting a research librarian to select reliable sources. Additional ethical and legal considerations were considered by not using discredited research articles. This project-based thesis did not use human subjects, and thus did not require consent. We anticipate that a future thesis team may seek to verify the validity of our handbook using a pre- and post-test model.

## Handbook Creation

After conducting the literature review the results revealed that the concepts behind the science of learning, development of visual aids to support the presenter's message, and the use of nonverbal communication should all be considered when creating an effective presentation. The information from the literature review guided the process of creating a handbook that can aid occupational therapists through the creation of an effective presentation. The three objectives of the handbook are centered around the following outcomes: to learn and understand how to apply experiential learning through the lens of an occupational therapist, to identify key frameworks on how to develop visual aids in order to effectively deliver a presentation, and to synthesize information on the science behind learning in order to enhance information retention. An explanation of experiential learning, the experiential learning cycle, and the benefits of experiential learning cycle, follows in the handbook. Other techniques that are further explained include slide design, knowing your audience, and nonverbal communication. The handbook is completed with an example of experiential learning. The handbook, in conjunction with the literature review, can be powerful resources for occupational therapists. By advocating, through effective and engaging presentations, occupational therapists can continue to contribute to the profession's growth and recognition in

healthcare. The results of the study should be interpreted with caution due to the limitations of current research.

## Limitations

The first limitation identified is that there is no audio version of the handbook available, thereby making it less accessible to people with disabilities such as autism, dyslexia, and vision problems, among others. In addition, many of the practices that were suggested may not be accommodating for individuals with disabilities. The literature review was conducted within a limited timeframe, less than six months. And finally, a larger sample size of OT schools' curriculum could benefit future research.

## Conclusion

In conclusion, the development of an effective and experiential presentation can add value to multifaceted settings such as healthcare, professional conferences, and academics. By means of this thesis, and the resources provided herein, we hope to continue to contribute to the overall growth of OT. Linking the science behind learning, experiential learning activities in presentations, and mindfulness of the presenters' nonverbal communication and body tactics allows for the development of presentations that are digestible, understandable, and retainable.

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**Appendix A:**

**Application of Study not Involving Human Subject Approval**



DS  Dr. Sheila Espina                                        Jun 2
    To Danielle   Valdez Festejo, Annette Hatala, +7         ···

Good morning, everyone,

Thank you for your patience as we reviewed your updated application. We're pleased to announce that it's been approved. We look forward to the results of your study!

Sincerely,
Research and Grant Writing Committee

**Dr. Sheila Espina, PT**     Lead Physical Therapist & ACCE, Los Angeles

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**Appendix B:**

**Handbook**

The Development of an Effective and Experiential Presentation in Occupational Therapy

Patricia Adeogun, Maegan Casillas, Dani Festejo, Emily Krakower

Stanbridge University

**Abstract**

The Development of an Effective and Experiential Presentation handbook was created to educate and provide occupational therapists with evidence-based presentation skills that can aid in audience comprehension, retention, and engagement. Utilizing this handbook can provide individuals who are not typically formally educated in presentation skills to improve their ability to retain information through experiential learning outcomes, thus enabling the development of an effective and engaging presentation. Included is an example of a flier that can be used to advertise the presentation, a presentation example with evidence-based techniques, examples of experiential learning and some explanations of the way our brain processes information. We hope that by utilizing this handbook we can share knowledge, promote occupational therapy and contribute to education.

*Keywords:* Effective presentation skills, experiential learning, occupational therapy, evidence-based

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**Program Flier:**

**Effective and Experiential Presentation Slide Example**



**Slide 1- Opening Slide**

Greetings and welcome,

We are occupational therapy students currently working on completing our master's

degree and this is our thesis project titled, "The Development of an Effective and

Experiential Presentation in Occupational Therapy." Our hope is that occupational

therapists will use this tool as a resource in making effective and efficient presentations

in academic and professional settings. Within this presentation, we will be incorporating

an example of experiential learning that involves therapeutic gardening to demonstrate

the benefits of the intervention.

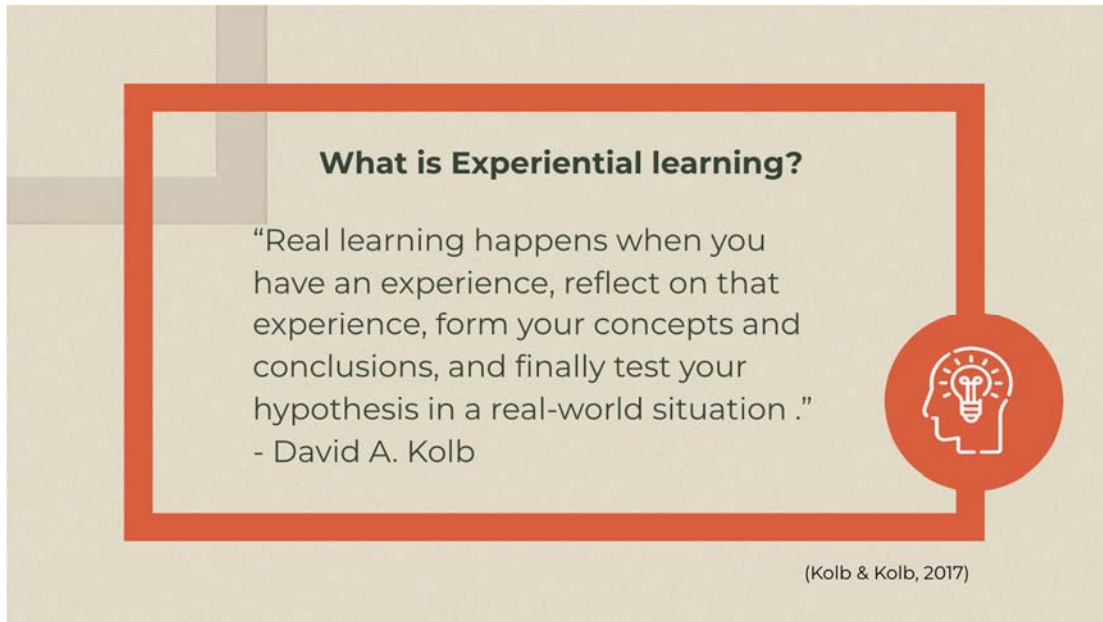**Slide 2- Objectives**

Current literature explains that by first establishing clear goals and objectives for both the presenter and the audience before diving into the content we can ensure presentations are purposeful, engaging, and effectively tailored to meet the needs of the audience. We do this by stating the objectives early in the presentation and by starting with the end goal in mind.

Objectives:

1. Learn and understand how to apply experiential learning through the lens of an occupational therapist.

2. Identify key frameworks on how to develop slide design in order to effectively deliver a presentation.

3. Synthesize information on the science behind learning in order to enhance information retention.

**Slide 3- What is Experiential Learning?**

First, we want to explain what experiential learning is. The theory of experiential

learning was first proposed by psychologist David Kolb in the 1970's. He states, "real

learning happens when you have an experience, reflect on that experience, form your

concepts and conclusions, and finally test your hypothesis in a real-world situation." To

paraphrase Kolb, people learn by doing.

Today we will experience one activity where we apply the experiential learning theory to

a therapeutic gardening intervention, and as therapists you will learn the different

functional tasks that your patients can work on while completing the activity.
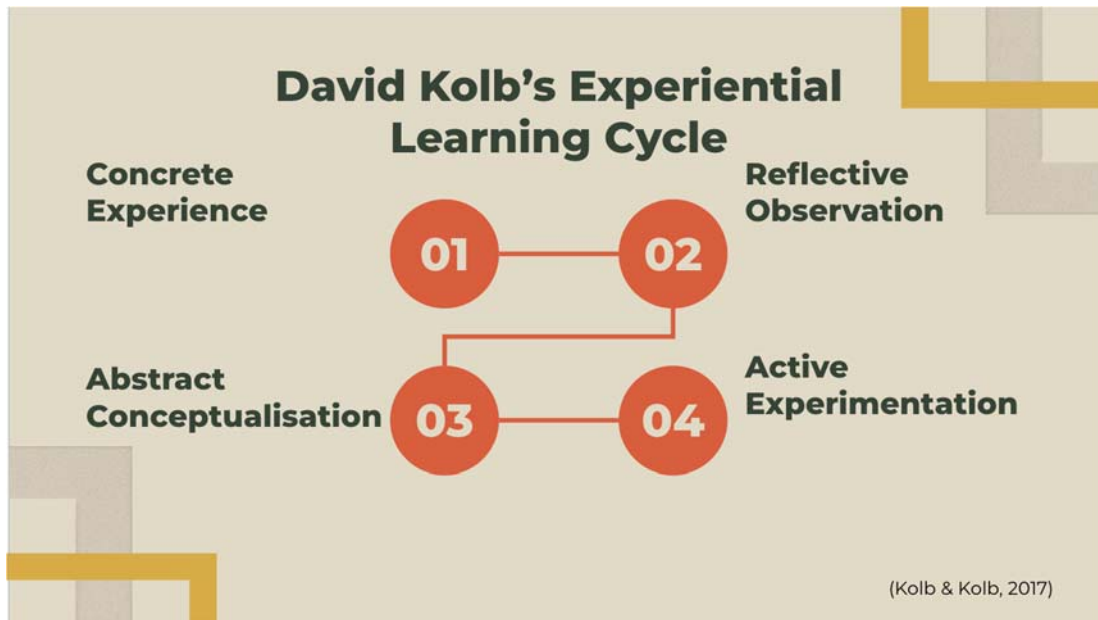
**Slide 4- David Kolb's Experiential Learning Cycle**

David Kolb's Experiential Learning cycle has stated that learning involves abstract concepts that can be applied flexibly in a range of situations. Thus, this experiential learning cycle involves concrete experience, reflective observation, abstract conceptualization, and active experimentation. The first part of the cycle, concrete experience, is where the learner participates in an experience that teaches specific concepts or accomplishes learning objectives. This can be either learning a new experience, situation, or reinterpreting an existing experience. Reflective observation is when a learner uses their existing knowledge to reflect on their own experience. An abstract conceptualization is when a learner reflects based on their experience they have learned. Lastly, active experimentation is when a learner is encouraged to test their new or similar experience and apply it within the environment around them.

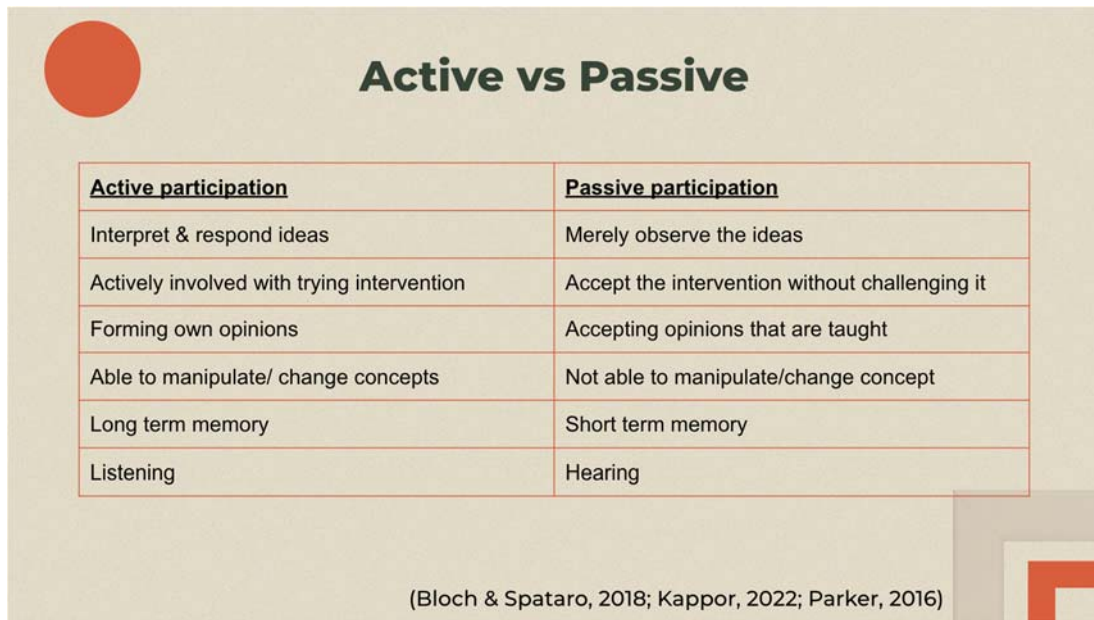**Slide 5- Benefits of the Experiential Learning Approach**

The core concepts of experiential learning, including the experiential learning cycle, have been utilized by educators for nearly half a century. Over the years this approach has made its way into education classrooms and has been adopted by many professions (Kolb & Kolb, 2017). In occupational therapy specifically we use this approach by working with clients to regain their ability to complete activities of daily living with competency. Most times it involves the individual relearning a concept due to injury or diagnosis and the learning takes place in a repetitious nature. Regardless, the patient is learning by doing. In a presentation context the same principles apply as the audience is engaging in problem solving, active engagement, reflection of performance, engagement, critical thinking, and memory retention.
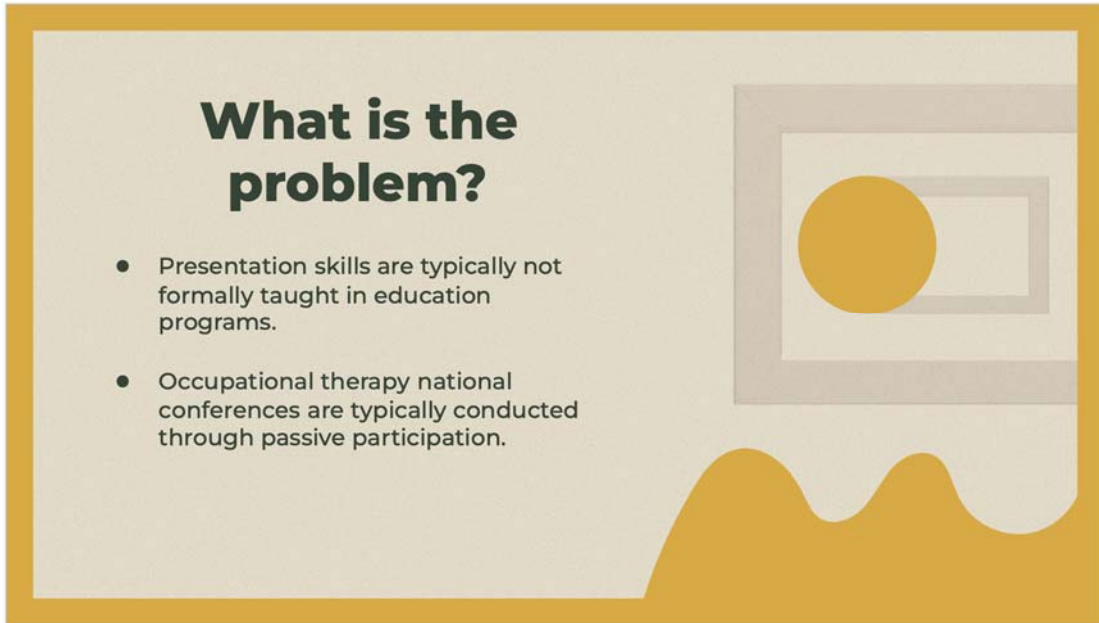
**Slide 6- What is the Problem?**

Through our research we have found that presentation skills are typically not formally

taught in educational programs, showing a need for enhanced training for occupational

therapy students. Additionally, at national conferences the presentation methods are

typically done through passive methods where the audience listens but does not actively

participate.

This is why we are here today, to equip you as practitioners with the proper presentation

tools needed to educate others on what the profession can accomplish and share your

knowledge with the occupational therapy community. We hope that through this effort

our profession continues to grow to new heights!

**Active vs Passive**

| Active participation | Passive participation |
|---|---|
| Interpret & respond ideas | Merely observe the ideas |
| Actively involved with trying intervention | Accept the intervention without challenging it |
| Forming own opinions | Accepting opinions that are taught |
| Able to manipulate/ change concepts | Not able to manipulate/change concept |
| Long term memory | Short term memory |
| Listening | Hearing |

(Bloch & Spataro, 2018; Kappor, 2022; Parker, 2016)

**Slide 7- Active vs Passive**

In this slide we have a visual aid that highlights key differences between active and passive learning. Active learning occurs when the learner is involved in more than just listening to a lecture whereas passive learning occurs when the audience observes the speaker's present information.

Listening is crucial in communication skills. This is an act of active processing where it requires effort to understand and focus on different information (Spataro & Bloch, 2018). Hearing is the process, power, and function of perceiving sounds; therefore, it is a passive process. The hearing process includes collecting data information in the brain that requires no response. Active listening surpasses passive hearing which establishes a deeper connection between the speaker and listener (Kappor, 2022).

The active participation in long-term memory (LTM) and passive participation in short-term memory (STM) provides cues to a specified item that has been shown to access items stored in both LTM and STM. The ability of using STM, is merely focusing on retaining information that is selected by attention or a representation of LTM. By using a

broad focus of attention also known as focus of attention (FOA), the information is

activated and shown to be relevant and retrieved easier. LTM is unlimited in capacity, but

some are not active unless it is retrieved into the FOA. It is indicated that accessing

information can be assisted by reviewing the most recent item and by experiencing

slower retrieval for previously viewed items. This info in the focus of attention is

accessed faster with active participants with LTM than passive participants in STM with

selective attention (Norris, 2017).
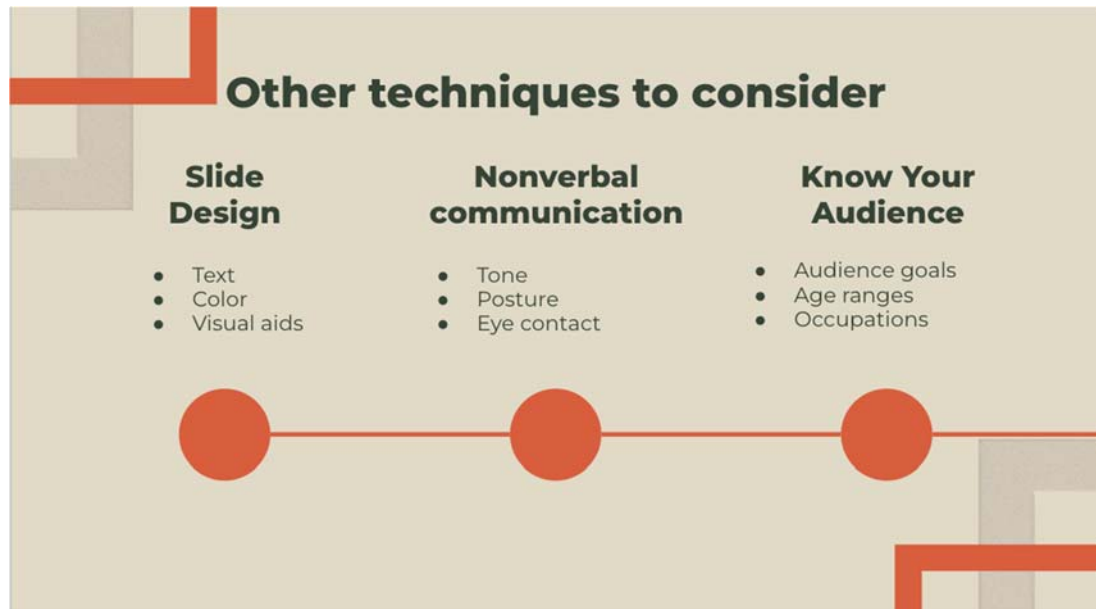
**Slide 8- Other Techniques to Consider**

Although experiential learning is one way to improve your overall presentation by allowing the participants to actively participate, it is also important to consider other variables.

Slide Design- By making the slides as simple yet visually pleasing as possible your audience will be less distracted and more focused on what the slide is explaining. This can be done through text, color, and visual aids.

Nonverbal communication- You can have a well put together presentation with effective components however, if you aren't able to maintain nonverbal communication aspects such as tone, posture, and eye contact you may lose your audience's interest. In the following slides we will explore these concepts further.

Know your audience- Understand who your audience is. Think about why they are listening to your presentation and what you think they expect to get out of this. Also consider their education level and occupations to make the content relatable.

(Grech, 2018)

**Slide 9- Know Your Audience**

It is important to tailor the presentation to your audience. Include a couple of examples

of how they can apply the concepts presented to their interests. This will not only keep

them interested in what you have to say but it will also initiate critical thinking.

- Also, take note of how the text information on this slide is minimized by using

  icons to guide the presenter through their speaking points.

**Slide 10 - Slide Design (Example of Bad Slide)**

As mentioned previously, slide design is important when creating a presentation as it caters to the audience's understanding of concepts and limits the distractions. The three components we are going to touch on are text, color, and visual aids.

- Text- At first glance you may notice that the text on this slide compared to the others is much smaller, making it difficult to see and ultimately may cause you to disengage. Using minimal and enlarged is one way that you can increase overall focus.

- Color- Additionally, the use of color also plays a role in slide design. You may notice that unlike the other slides this slide is green and contains multiple other graphics in the corner. This dramatic change in color can also cause audience members to become distracted and/or disengaged.

- Visual aids- The use of a picture, graph or chart is an effective way to make a strong point. The visual aid in this instance is the slide itself, where you can understand what a bad slide resembles as well as the important roles that text

and color play when creating a presentation.
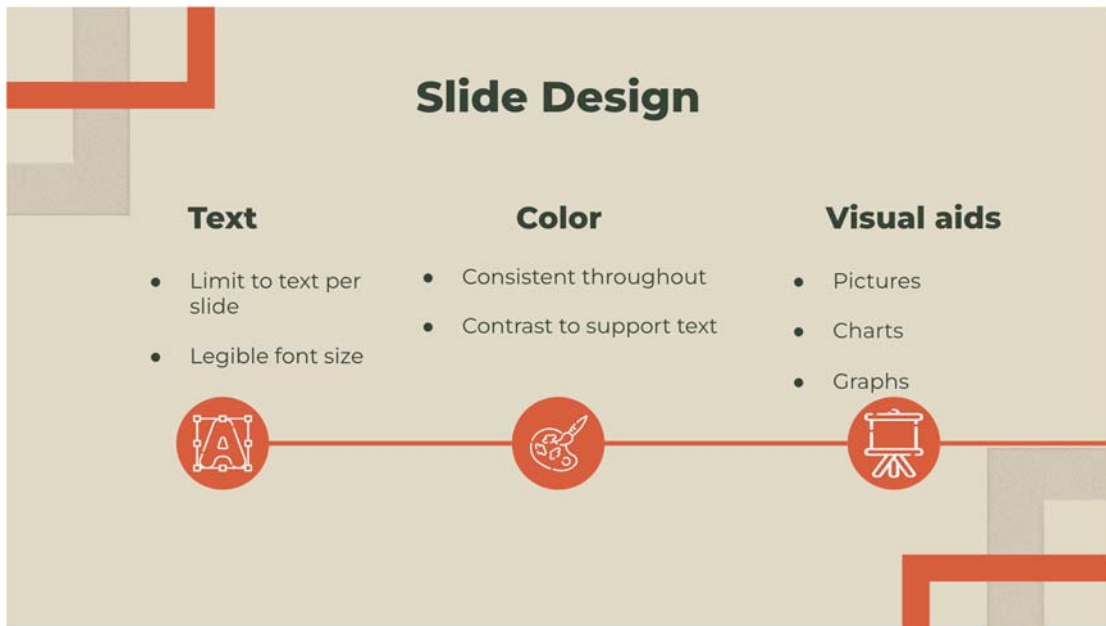
**Slide 11- Slide Design (Good Slide)**

This slide contains the same information that was shared in the previous slide but in a simpler format where text, color, and visual aids are taken into consideration to support the audience's learning.

**Slide 12- Nonverbal Communication**

Audience nonverbal feedback- Take into consideration your audience's nonverbal

communication as well. This is one way that you can gauge whether they are engaged

or not. Look for signs such as head nods when you explain a concept, eye contact and

the way individuals are sitting in their seats during the duration of the presentation. This

observed feedback can tell you if what you are doing is working or if you need to adjust

a few components.
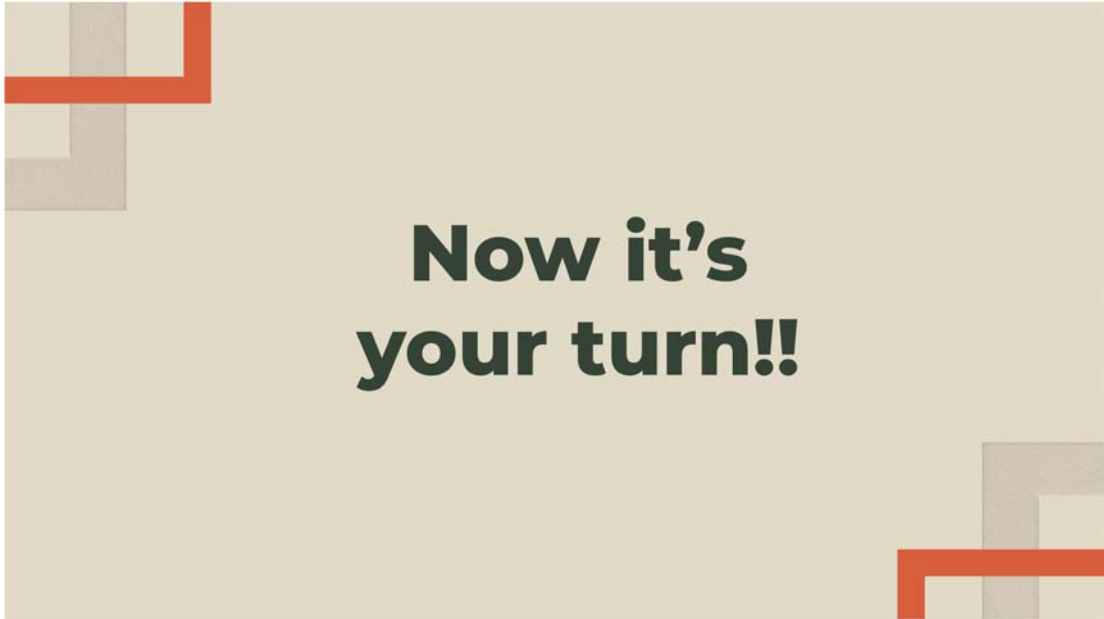
**Slide 13 - Now It's Your Turn!**

Now we are going to apply the experiential learning activity with a therapeutic

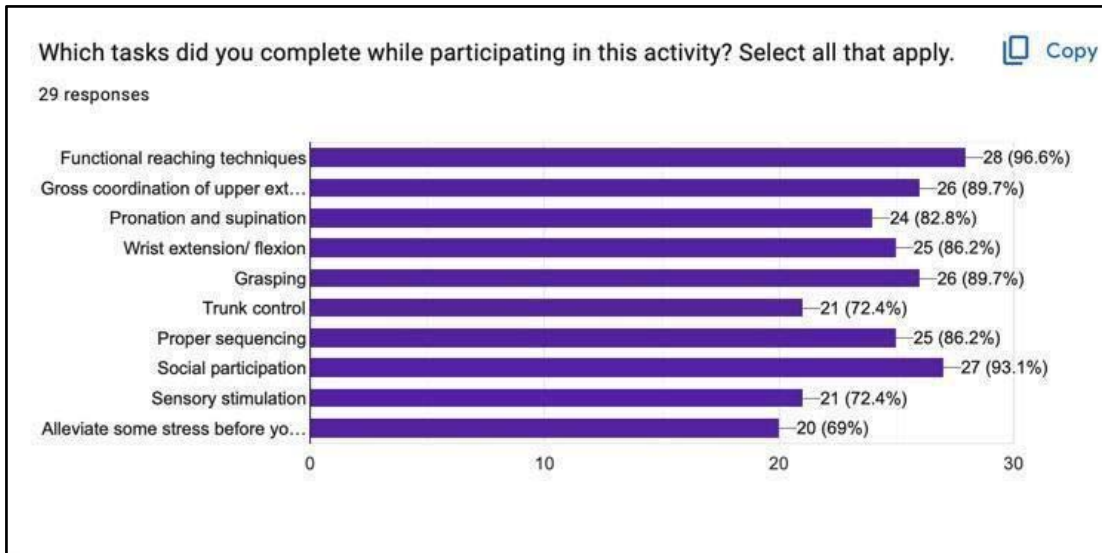gardening component with a step-by-step process.

**Example of Experiential Learning Activity**



We will be doing an experiential learning activity using therapeutic gardening as an intervention. In the image above, we have the materials needed for the therapeutic gardening activity which includes: dixie cup, seeds, spoon, a bag of soil, and water. The step-by-step process in making the activity would be:

1. First use the spoon to poor 3 cups of soil into the dixie cup

2. Next, once the soil is added, poke three holes in the soil.

3. Add the seeds into the soil within the three holes, and then cover up with the soil.

4. Lastly, once the seeds are planted, add ¼ cup of water into the dixie cup.

Which tasks did you complete while participating in this activity? Select all that apply. [Copy]

29 responses

| Task | Count (%) |
|------|-----------|
| Functional reaching techniques | 28 (96.6%) |
| Gross coordination of upper ext... | 26 (89.7%) |
| Pronation and supination | 24 (82.8%) |
| Wrist extension/ flexion | 25 (86.2%) |
| Grasping | 26 (89.7%) |
| Trunk control | 21 (72.4%) |
| Proper sequencing | 25 (86.2%) |
| Social participation | 27 (93.1%) |
| Sensory stimulation | 21 (72.4%) |
| Alleviate some stress before yo... | 20 (69%) |

**Results of Activity**

In a previous presentation, we had the participants complete a survey after they finished

the gardening activity to state which functional tasks they utilized while planting their

seeds. The options that were available included: functional reaching, gross motor

coordination of the upper extremity, pronation and supination, wrist extension/ flexion,

grasp, trunk control, proper sequencing, social participation, sensory stimulation, and

stress management. Many stated that through participating in the therapeutic gardening

activity they realized how many clients they could apply this activity to and the

numerous ways it can help achieve functional goals.

**Sensory Pathways Explained:**
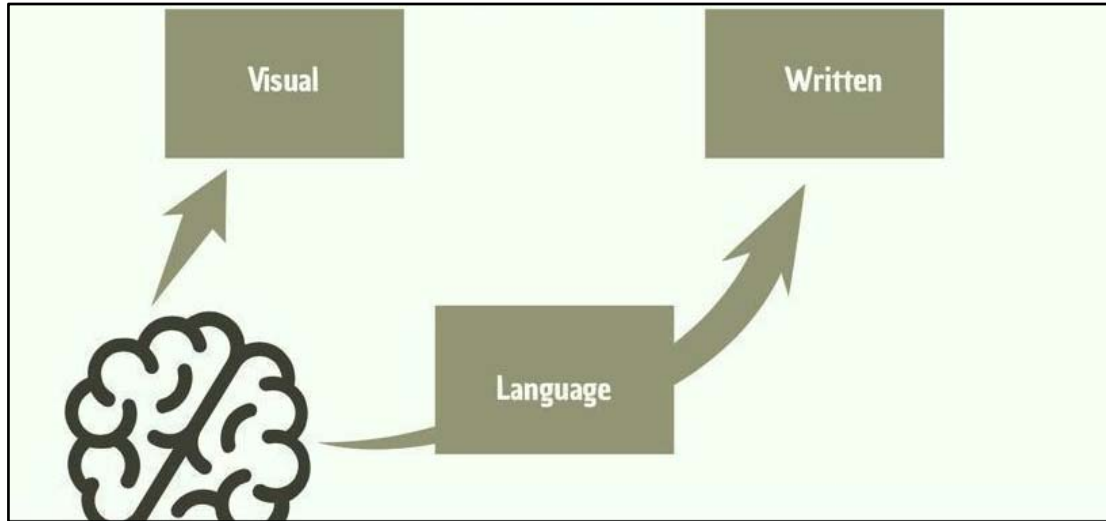


Learning involves the acquisition and storage of new information by the human memory. Understanding how the brain retains information can be helpful in presenting new information to an audience. Images (visual aids) and spoken communication (language) arrive in our working memory via separate sensory pathways. For example, a learner can process visual stimuli through one channel and can simultaneously process language through a second channel. However, studies show that learners have great difficulty processing both written and spoken words at the same time (Noushad & Khurshid, 2019). This is because written and spoken words use the same sensory channel. It is essential to keep these sensory pathways in mind when preparing a presentation, as they can aid in the creation of an effective presentation that enables learning.
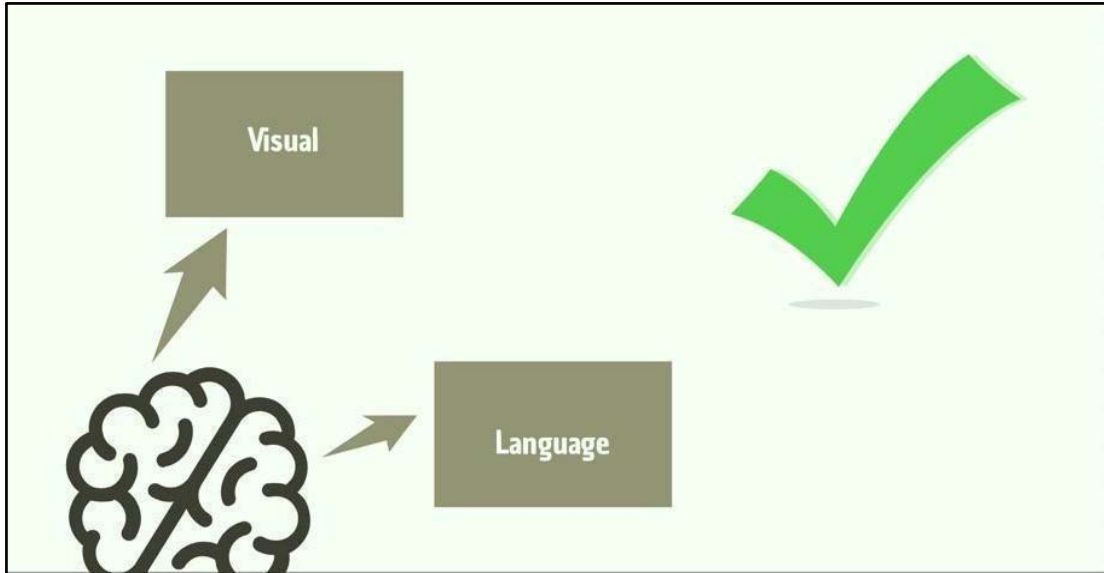
Visual and language input utilize separate sensory pathways in our brains therefore your audience will be able to comprehend an explanation of an image on a slide by walking them through what the visual aid is implying using verbal cues. An example of this would be an educational video both explaining and demonstrating how something works simultaneously. Most of us have heard the saying "a picture is worth a thousand words" meaning it conveys a complex idea or emotion more effectively than a large amount of written description.
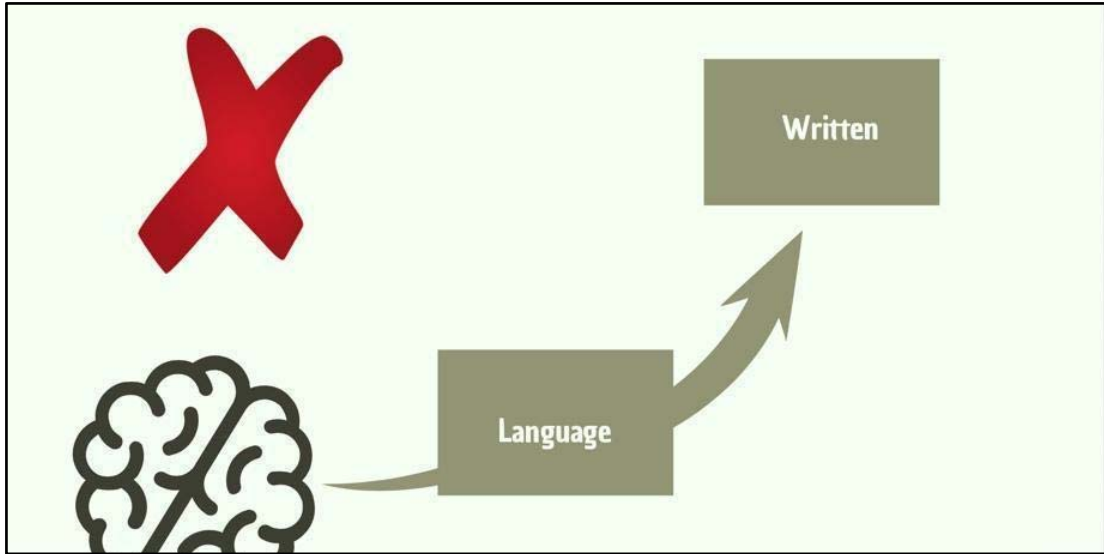
However, if the presenter is using their voice to explain a concept while at the same time there is a body of text written on the slides the audience will experience difficulty concentrating on both stimuli simultaneously. Therefore, it is important to use minimal wording on slides so your audience can remain engaged on the information that is being shared through your voice.
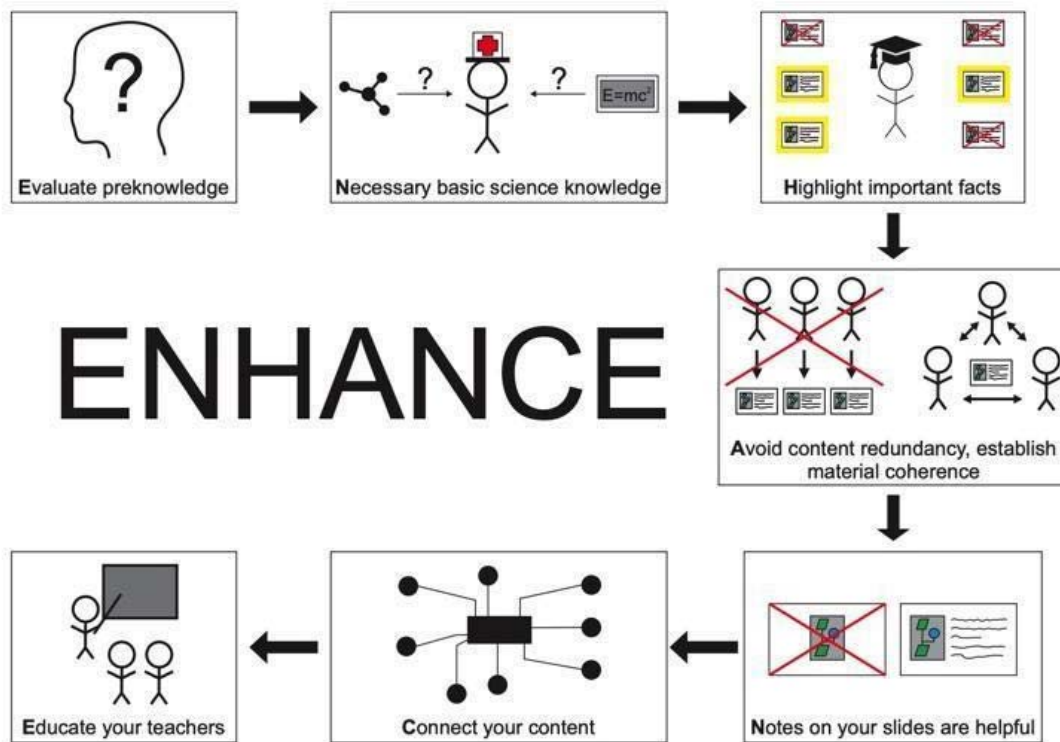
Fig 1. This figure shows the seven steps of the ENHANCE concept.

**ENHANCE Concept**

By keeping the sensory pathways in mind while creating a presentation the presenter can enhance the audience's learning. Kouz et al., (2020) explains that using the ENHANCE concept in slide design makes science concepts that are difficult to understand more manageable. The seven-step approach are as follows:

E- Evaluate pre knowledge:

　　What is your audience's prior knowledge on this topic prior to this presentation?

N- Necessary basic science knowledge:

　　What information should your audience know for a solid understanding of the

　　information you are about to present?

H- Highlight important facts:

　　Think of the cognitive load theory. Don't overwhelm your audience by

presenting too much information. Instead present a shallow overview to create a knowledge base and then focus on the details.

A- Avoid content redundancy, establish material coherence:

Less is more. Use the same diagrams, charts, and figures to explain different material to aid in retention.

N- Notes:

Make use of the text on your slides so the audience can look back at the content and have a well-rounded understanding without being overwhelmed by the information.

C- Connect your content:

Audiences are more likely to be engaged if they understand the topic's relevance and how it can be applied to their occupations.

E- Educate your teachers:

Communicate what methods are effective and which are making learning more difficult. This allows the opportunity for modifications and reduces misunderstandings.

| Strategy | Benefit | Facilitation tips |
|---|---|---|
| **Think:** Prompt audience members to reflect individually.<br>**Pair:** Audience discusses prompt with a neighbor.<br>**Share:** Individuals share an idea with the entire audience. | Audience members reflect, discuss, and develop a topic. This brings in multiple viewpoints and encourages participation of many individuals. | Think, pair, and share are listed separately, because depending on time available, you might do a think–pair, or a pair, or a pair–share. To save time, you could eavesdrop on conversations and share a couple of ideas you heard from the groups rather than having individuals share. |
| **Make a prediction:** After describing experimental methodologies, have audience members make a prediction about the results before sharing. | This engages the audience and familiarizes them with expected outcomes before sharing data. | It may be useful to show a graph with a box covering data to familiarize the audience with the experimental framework and scaffold their prediction. |
| **Data interpretation:** Show data and, rather than explaining results immediately, allow audience members to discuss and interpret. | This supports better understanding of the data, engages audience members, and may benefit newer members of the research community who are less familiar with methodologies of the field. | Use this strategy when data are complex or busy. It may be helpful to structure this with guiding questions to help the audience focus (e.g., What trends do you see? What do you think occurred at point X?). |
| **Electronic audience response:** Prompt the audience with a question and have them respond in real time via an electronic response system. | This gives every individual in the audience the chance to engage and share ideas anonymously and can be a quick and efficient way to get feedback from the audience. | Test this out in the space before the presentation if possible. Tailor your talk based on feedback. Poll Everywhere allows creative presentation of responses, e.g., in a word cloud. Kahoot creates a game atmosphere. |
| **Hand count or noise poll:** Prompt the audience to raise hands, stomp their feet, snap their fingers, or clap if they agree with your statement, have a common experience, etc. | The benefits of this strategy are similar to those of the digital version; however, there is less of a risk with this polling method because no digital tools are required. | Encourage the audience to raise hands high if it is low stakes. If the information you seek is personal, you can have individuals hold up a number of fingers near their chest to hide votes from other audience members. |
| **Demonstrate use of a tool:** Rather than talk about a research tool or method, have audience members try out the tool or protocol. | This increases audience familiarity with the tool and builds self-efficacy to implement it. | The experience may need to be shortened and may require appropriate space and materials. |
| **Structure the Q&A:** Add a quick pair discussion of the main point at the end of the presentation. | This creates processing time for the audience to consider the take-home message and may increase the diversity and quality of questions. | If this technique is new to the session, a quick explanation of why you are using this technique or quickly encouraging your audience to think out loud may help get things started. |

**Active Learning Strategies for Conference Presentations**

Active learning strategies are important to increase engagement, learning, and retention. This utilizes the use of PowerPoint presentations, visual aids, slide designs, etc. to help achieve deeper levels of learning. The table shown above offers different strategies to quickly engage the audiences during a conference presentation. Identifying these learning activities can support and provide guidance on prompts, timing, instructions, and audience interpretation before a conference presentation (Corwin et al., 2018).

| Verbal Factors | Nonverbal Factors |
|---|---|
| • Vary your voice pitch or melody; avoid speaking in a monotone. | • Dress conservatively and avoid excessive jewelry; your appearance directly affects your credibility. |
| • Pronounce and articulate your words and syllables. | • Look at your audience. |
| • Speak slowly; an optimal range is 150 to 185 words per minute. | • Make sure your facial expressions agree with your message. |
| • Avoid filler sounds and words (e.g., "er," "uh," "you know," "okay"). | • Interact with your visual aids, but do not read from them. |
| • Project your voice; if your voice is soft, use a microphone. | • Involve your audience; ask questions and wait for responses; call on individuals. |
| • Use pauses or changes in your voice level to emphasize key points. | • Avoid clutching or leaning on the podium, and come from behind the podium when feasible. |
| • Make sure your sentences are grammatically correct. | • Use gestures and movements appropriately. |
| • Always stay within your allotted time. | • Avoid distracting mannerisms (e.g., drinking water, chewing gum, hands in pockets, twirling or clicking a pen). |

**Recommendations for Delivering a Professional Presentations**

The verbal and nonverbal factors chart that is shown are examples for delivering a professional presentation to capture audiences' engagement. The speaker's role is to allow audiences to receive and respond to the messages by utilizing both verbal and nonverbal factors that can guide a successful presentation (Jacobs & Lachter, 2015).

**Conclusion:**

Presentations are used today as a method to communicate new ideas. However, it has become a common theme where the distraction of busy backgrounds, lists of bullet points and complex illustrations cause the presenter to miss their target when delivering their message. In this handbook we have composed a handful of evidence-based techniques to enhance future presentations and achieve greater impact.

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