DIGCIT GUIDE TO ASSESS LEARNING STYLES

Digital Citizenship

TEAM 4 excellence

SEAL CYPRUS

ATHENS LIFELONG LEARNING INSTITUTE

DIGITAL CITIZENSHIP

GUIDE TO ASSESS LEARNING STYLES

Objectives of the guide

Using this guide, trainers will:

- Develop an understanding of learning styles and the trainer's own style so that when creating a lesson plan, the trainer can design instructional activities to encompass all learning styles;
- Understand the difference between adult learners and child learners so that when developing a lesson plan, the trainer will select presentation methods which best fit the needs of the adult learner;
- Be able to develop a lesson plan to help structure the training;
- Understand assessment strategies so that during the training session, the trainer will be able to measure learner understanding, engage students in the learning process and encourage independent thinking;
- Understand learners' own learning styles, so that they can focus on the most appropriate learning materials and activities (e.g. eBook, presentation, video, quiz, etc.).

Stages of learning

Learning is a constant and life-long process. We are continuously taking in and assimilating information. There are many theories and models describing the learning process.

Learning styles refer to a range of theories that aim to account for differences in individuals' learning. Many theories share the proposition that humans can be classified according to their "style" of learning but differ in how the proposed styles should be defined, categorized, and assessed. A common concept is that individuals differ in how they learn.

The idea of individualized learning styles became popular in the 1970s and has greatly influenced education despite the criticism that the idea has received from some researchers.

Since 2012, learning styles have often been referred to as a "neuromyth" in education. There is evidence of empirical and pedagogical problems related to forcing learning tasks to "correspond to differences in a one-to-one fashion". Studies contradict the widespread "meshing hypothesis" that a student will learn best if taught in a method deemed appropriate for the student's learning style. However, a 2020 a systematic review suggested that a majority (89%) of educators around the world continue to believe that the meshing hypothesis is correct.

- *Students' preferred learning modes have significant influence on their behaviour and learning.*
- *Students' preferred learning modes should be matched with appropriate learning strategies.*
- *Information that is accessed through students' use of their modality preferences shows an increase in their levels of comprehension, motivation, and metacognition.*
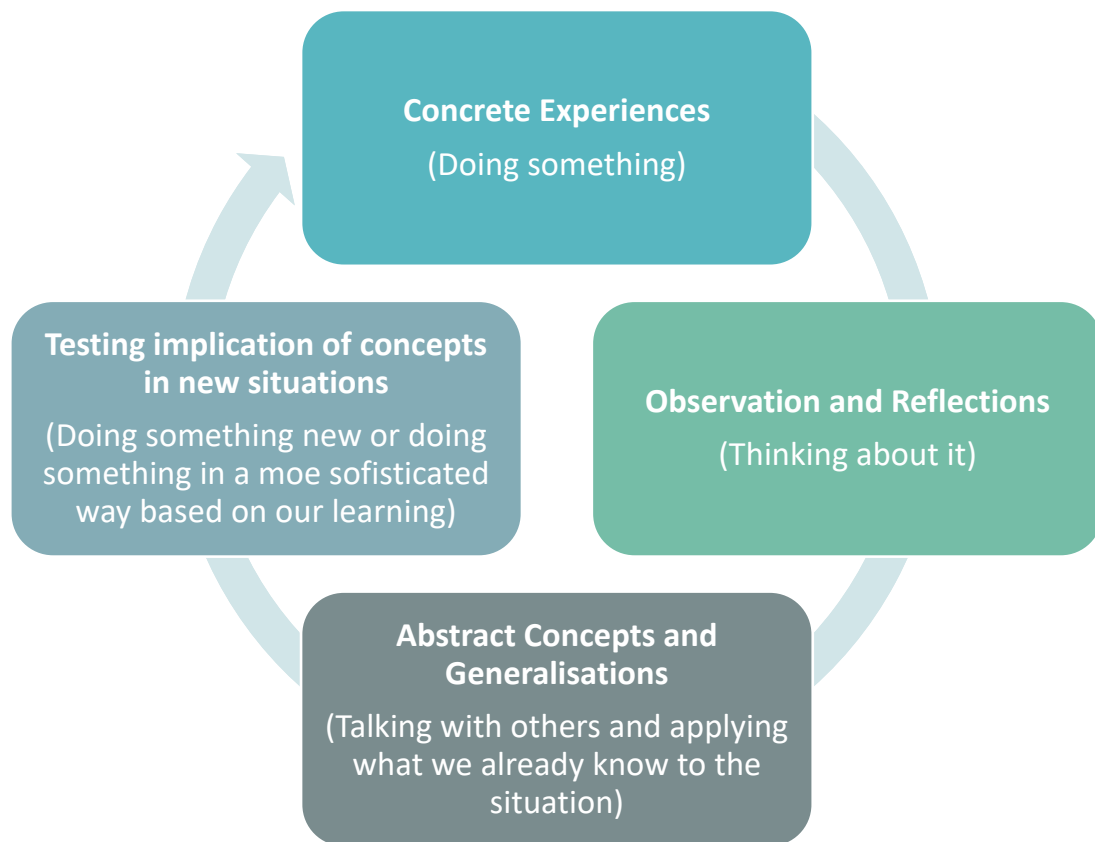
Figure: Four Stages of Learning

- **Experiencing:** *By having an experience (through a discussion with peers, reading an article, or taking on a responsibility), we begin to think about things differently.*
- **Reflecting:** *Experiences can prompt us to consider making changes. Reflecting might involve assessing our own behaviour, evaluating our contribution to a particular situation, or speculating how our approach to a situation might be improved.*
- **Theorizing:** *Once we have gathered the necessary information about the experience, we are in a position to form generalizations or conclusions. Once we have reached a conclusion, we can create a strategy about our next steps.*
- **Testing:** *Finally, we can test our theories and see if they work. If they do, they become part of our knowledge or skills. If they do not, we either modify or completely discard them.*

We all approach new information in different ways.

Our preferred method is referred to as a *"learning style"*.

Learning styles

Over the years most people develop learning "habits" that help them benefit more from some experiences than from others. Since they are probably unaware of this, knowing own learning style helps people pinpoint their learning preferences so that they are in a better position to select learning experiences that suit their style and having a greater understanding of those that suit the style of others.

Peter Honey and Alan Mumford developed a questionnaire to assess Learning Styles. It has been used extensively within the industry and academia for over 35 years. Learning Styles Questionnaire (LSQ) is

designed to measure learning preferences in individuals aged 16+. The LSQ is based on David Kolb's Learning Cycle theory which looks directly at how individuals learn, rather than their tendencies to learn.

The questionnaire is available in 40 or 80-items and is designed to stimulate individuals and groups into thinking about how they prefer to take in information and learn from experiences; it follows the learning cycle (do; review; conclude & plan).

Once an individual's preference for learning style has been identified, they are better placed to choose learning experiences that suit their predominant style(s). Helping them learn more easily and more effectively from a range of different learning opportunities.

In this course, we offer you the possibility to assess your learning style and later adapt your learning process.

However, there are many other models and theories about people's learning, some of which are summarised below.

VAK learning preferences

Therefore, there are **four types of learning**:
- *Visual*
- *Auditory*
- *Reading & Writing*
- *Kinesthetic*

VISUAL - they prefer the use of images, maps, and graphic organizers to access and understand new information.

Visual Strategies:
- *Utilize graphic organizers such as charts, graphs, and diagrams.*
- *Redraw your pages from memory.*
- *Replace important words with symbols or initials.*
- *Highlight important key terms in corresponding colours.*

AUDITORY - Auditory learners' best understand new content through listening and speaking in situations such as lectures and group discussions. Aural learners use repetition as a study technique and benefit from the use of mnemonic devices.

Aural Strategies:
- *Record your summarized notes and listen to them on tape.*
- *Talk it out. Have a discussion with others to expand upon your understanding of a topic.*
- *Reread your notes and/or assignment out loud.*
- *Explain your notes to your peers/fellow "aural" learners.*

READ & WRITE - Students with a strong reading/writing preference learn best through words. These students may present themselves as copious note takers or avid readers, and are able to translate abstract concepts into words and essays.

Read/Write Strategies:
- *Write, write and rewrite your words and notes.*
- *Reword main ideas and principles to gain a deeper understanding.*
- *Organize diagrams, charts, and graphic organizers into statements.*

KINESTHETIC - Students who are kinesthetic learners best understand information through tactile representations of information. These students are hands-on learners and learn best through figuring things out by hand (i.e. understanding how a clock works by putting one together).

Kinesthetic Strategies:
- *Use real life examples, applications and case studies in your summary to help with abstract concepts.*
- *Redo lab experiments or projects.*
- *Utilize pictures and photographs that illustrate your idea.*
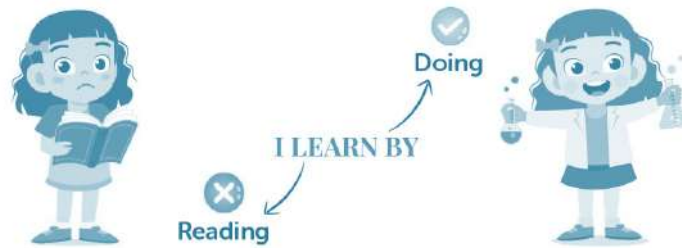
It is important to remember they are not the only way they can learn, and people can improve their skills in each style.

VISUAL-AUDITORY-KINESTHETIC (VAK)

Another model that translates well for trainers in planning their activities is the Visual-Auditory-Kinesthetic (VAK) model. This model is based on our senses and places learners in three broad categories:

- *Visual learners prefer looking, seeing and watching.*
- *Auditory learners prefer listening, hearing, and speaking.*
- *Kinesthetic learners prefer experiencing, moving, and doing.*

As learners, we often will not fit exclusively into one style, but will use elements of all three.

Multiple Intelligences

An expansion on the VAK model is the theory of multiple intelligences proposed by Howard Gardner. It expands the notion of "intelligence" beyond traditional academic notions, and includes eight abilities:

- *Musical: sensitivity to sounds, rhythms, tones, and music*
- *Visual-spatial: spatial judgment and the ability to visualize with one's mind*
- *Verbal-linguistic: facility with words and language*
- *Logical-mathematical: logic, reasoning, and numbers*
- *Bodily-kinesthetic: control of one's bodily motions*
- *Interpersonal: sensitivity to others' moods and motivations, and ability to work with others*
- *Intrapersonal: self-reflection and understanding of one's own capabilities and limitations*
- *Naturalistic: relating information to natural surroundings (Wikipedia)*

As a trainer, it is necessary to be aware of your own learning preferences because it will influence the way you design and conduct your training session. For example, if you plan a verbal lecture heavy on theory, learners who rely on reflective observation, or have a preference for visuals, may have a harder time learning the material.

Learners' characteristics

Adults and children differ as learners. Differences include their conception of self; the experiences they have had; their orientation to learning; their readiness to learn, and their perspective of time. Important differences in each of these areas are listed below:

Table: Learner characteristics of adults and children

Learner Characteristic	Adults	Children
Conception of Self	Need to validate the information based on their beliefs and values.	Accept the information being presented at face value.
Experience	Significant ability to serve as knowledgeable resource to the trainer and fellow learners.	Little ability to serve as knowledgeable resource to teacher or fellow students.
Orientation to Learning	Have substantial experience upon which to draw. May have fixed viewpoints	Have little or no experience upon which to draw, are relatively "blank slates"
Readiness to Learn	Decide for themselves what is important to be learned	Rely on others to decide what is important to be learned
Time Perspective	Expect what they are learning to be immediately useful	Expect what they are learning to be useful in their long-term future

Characteristics of Visual Learners

They look around and examine the situation. They may stare when angry and beam when happy. Facial expression is a good indicator of emotion in the visual learner. They think in pictures and detail and have vivid imaginations. When extensive listening is required, they may be quiet and become impatient. Neat in appearance, they may dress in the same manner all the time.

They have greater immediate recall of words that are presented visually. Visual learners like to take notes. Relatively unaware of sounds, they can be distracted by visual disorder or movement. They solve problems deliberately, planning in advance and organizing their thoughts by writing them down. They like to read descriptions and narratives.

- *Thoughts wander during lectures*
- *Observant but may miss some of what is said*
- *Well organized*
- *Like to read and show intense concentration while reading*
- *Good speller*
- *Remember better by seeing charts, diagrams, etc.*
- *Concentrate well*
- *Need to see directions; not hear them*
- *Good handwriting*
- *Good memory for faces but forget names*
- *Plan ahead*
- *Not really talkative*
- *Attention to details*

Tools for Visual Learners	Methods to Engage Visual Learners	Visual picture teachers prefer …
Use mind pictures or mind maps	Write out directions	Using written text to explain things
Take notes	Use visuals when teaching lessons, such as pictures, charts, diagrams, maps and outlines	To give handouts and expect the class to have read widely and well

Use "clue" words for recalling	Physically demonstrate tasks	Clever use of words as well as the use of interesting words
Use colored highlighters to color code texts and notes	Organize information using color codes; keep color codes consistent	Argument and discussion in written form
Take photographs	Give students the opportunity to write notes during class	Putting words in some order, such as using priorities or categories
Watch TV	Provide written summary of lesson at the end of notes/lecture presentation	Texts that are dense with text, summaries, and abstracts

Characteristics of Auditory Learners

They talk about what to do, about the pros and cons of a situation. They indicate emotion through the tone, pitch, and volume of their voices. They enjoy listening but cannot wait to get a chance to talk. They tend toward long and repetitive descriptions. They like hearing themselves and others talk.

They tend to remember names but forget faces and are easily distracted by sounds. They enjoy reading dialogue and plays and dislike lengthy narratives and descriptions. Auditory learners benefit from oral instruction, either from the teacher or from themselves. They prefer to hear or recite information and benefit from auditory repetition.

- *Like to talk*
- *Talk to self*
- *Lose concentration easily*
- *Prefer spoken directions over written directions*
- *Enjoy music*
- *Read with whispering lip movements*
- *Remember names*
- *Sing*
- *Cannot concentrate when noisy*
- *Extroverted*
- *Like listening*
- *Prefer lecture and discussion*
- *Prefer verbal praise from teachers*

Tools for Auditory Learners	Methods to Engage Auditory Learners	Auditory teachers prefer ...
Record lectures for repeated listening	Utilize sound during lectures	Using their voices to explain things
Use rhymes to help memorize	Use beats, rhymes or songs to reinforce information	Recordings, conversations, and phone calls
Say study material (record and listen repeatedly for review)	Use mnemonic devices	Discussion in class
Listen to recordings of study material while driving to work or school	Allow students to engage in small group conversation during class	Argument, debate and discussion
Sound out words	Think, Pair, Share	Students to discuss issues among themselves, work together, and contribute their ideas

Characteristics of Reading/Writing Learners

Reading/writing learners often prefer to learn through texts. They tend to interact with written formats as they write and then rewrite their notes. Moreover, they are good at arranging words in some type of hierarchy while studying.

- *Efficient Studying & Learning Techniques for Reading/Writing Learners*
- *Take notes and rewrite them while studying.*
- *Use bullet point lists to put down a lot of information.*
- *Turn diagrams and charts into words.*
- *Read supplementary resources on a topic.*

Characteristics of Kinesthetic Learners

They try things out, touch, feel and manipulate objects. Body tension is a good indication of their emotions. They gesture when speaking, are poor listeners, stand very close when speaking or listening, and quickly lose interest in long discourse.

They remember best what has been done, not what they have seen or talked about. They prefer direct involvement in what they are learning. They are distractible and find it difficult to pay attention to auditory or visual presentations. Rarely an avid reader, they may fidget frequently while handling a book. Often poor spellers, they need to write down words to determine if they "feel" right.

- *Move around a lot*
- *Prefer not to sit still*
- *Move a lot while studying*
- *Like to participate in learning*
- *Like to do things rather than read about them*
- *Do not prefer reading*
- *Do not spell well*
- *Enjoy problem solving by doing*
- *Like to try new things*
- *Talk with hands or gestures*
- *Select clothes according to comfort*
- *Like to touch objects*

Tools for Kinesthetic Learners	Methods to Engage Kinesthetic Learners	Kinesthetic teachers prefer …
Walk while studying	Give breaks when possible and have students move around during those breaks	Using real life examples to explain things
Do things as you say them	Use the outdoors for learning opportunities when possible	Guest lecturers, case studies, practical work, laboratories
Write words; use markers, pens, pencils to see if they "feel right"	Teach concepts through games and projects	Students to use all sensory modes to present their ideas

Write on a white board in order to use gross muscle movement	Have students answer questions during class on white board	Clever use of quotations, metaphors, examples and analogies in written work
Use the computer	Use a dance, play, or role play activities to reinforce information	To use the words, "give examples, apply, and demonstrate" in written exam questions

What is your learning style?

To better understand how you prefer to learn and process information, place a check in the appropriate space after each statement below:

In this assessment, we will put the accent on the three learning styles auditory, visual, and kinaesthetic.

Questions	*Often*	*Sometimes*	*Seldom*
1. Can remember more about a subject through listening than reading.			
2. Follow written directions better than oral directions.			
3. Like to write things down or take notes for visual review.			
4. Bear down extremely hard when writing.			
5. Require explanations of graphs, diagrams, or visual directions.			
6. Enjoy working with tools.			
7. Are skillful and enjoy developing and making graphs and charts.			
8. Can tell if sounds match when presented with pairs of sounds.			
9. Remember best by writing things down several times.			
10. Can understand and follow directions on maps.			
11. Do better at academic subjects by listening to tapes and lectures.			
12. Play with coins or keys in pockets.			
13. Learn to spell better by repeating the letters out loud than by writing the word on paper.			
14. Can better understand a news article by reading about it than listening to the radio.			

15. Chew gum, snack, or smoke during studies.			
16. Feel the best way to remember is to picture it in your head.			
17. Learn spelling by "finger spelling" the words.			
18. Would rather listen to a good lecture or speech than read about the same material in a book.			
19. Are good at working and solving jigsaw puzzles and mazes.			
20. Grip objects in your hands during learning periods.			
21. Prefer listening to the news on the radio than reading about it in the newspaper.			
22. Obtain information on an interesting subject by reading related materials.			
23. Feel very comfortable touching others; hugging, handshaking, etc.			
24. Follow oral directions better than written ones.			

Scoring the Barsch Learning Style Inventory

- Often = 5 points
- Sometimes = 3 points
- Seldom = 1 point

Place the point value on the line next to its corresponding item number. Next, sum the values to obtain your preference scores under each heading. The highest score indicates your learning style preference. The lowest score indicates your learning style weakness.

Visual	Auditory	Kinesthetic/Tactile
2.	1.	4.
3.	5.	6.
7.	8.	9.
10.	11.	12.
14.	13.	15.

16.	18.	17
20.	21.	19.
22.	24.	23.
Total	**Total**	**Total**

What Type of a Learner Are You?

If you are a **VISUAL learner**, by all means be sure that you look at all study materials. Use charts, maps, filmstrips, notes, videos and flash cards. Practice visualizing or picturing words and concepts in your head. Write out everything for frequent and quick visual review.

If you are an **AUDITORY learner**, you may wish to use tapes. Tape lectures to help fill in gaps in your notes. Listen and take notes and review your notes frequently. Sit in a classroom where you can hear well. After you have read something, summarize it and recite it aloud. Talk to other students about class material.

If you are a **KINESTHETIC/TACTILE** learner, trace words as you are saying them. Facts that must be learned should be written several times. Make study sheets. Associate class material with real-world things or occurrences. When appropriate, practice role-playing or complete hands-on activities or projects.

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