

Preference of Global vs. Sequential Learning among Higher Education Students

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ABSTRACT

Introduction: Students learning to be global citizens through global education will be able to learn more about international communities, social justice issues, global events, and international ideas in their typical classroom setting. Global Education will shape the way people view the world to help better shape the world. It will foster service-learning initiatives and activism within the community and around the world. This study aimed to analyze the preference of higher education students in learning towards global, sequential or mixed.

Materials and Methods: The study was conducted in Chennai with 100 students of higher education including medical and other professions in the Chennai subpopulation. The students were asked to fill the standard questionnaire 'index of learning style questionnaire' which contains 44 questions online. The results obtained were then tabulated and calculated.

Results: The results showed that the majority of our study population could balance well in both the global and sequential type of learning (61%). Followed by global learning (24%) and sequential learning (15%).

Conclusion: From the study, we conclude that it is better to follow global learning and teaching methods in higher education institutions, though sequential learning is convenient to follow.

Key words Sequential learning, Global learning, Higher education students, Learning style, Education

HOW TO CITE THIS ARTICLE: MP Brundha, Preference of Global vs. Sequential Learning among Higher Education Students, J Res Med Dent Sci, 2021, 9(8): 206-209

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Received: 02/06/2021
Accepted: 17/08/2021

INTRODUCTION

Education, being a process of knowledge transfer always has advances that are generally on par with the discovery of newer technologies. Currently, most of the education process has shifted away from the conventional blackboard towards the usage of more student-friendly technologies. The process of education is guided by educational theory and learning styles [1].

Several different models have been proposed to explain these varying learning styles. Sequential learning means the students learn best by understanding the details of a subject and slowly building an image of the bigger picture [2]. Global learning means the students need to see the bigger picture and how the new material connects to information they have already learned. Sequence learning is inherent to human ability because it is an integrated part of conscious and non-conscious learning as well as activities [3]. Sequences of information or sequences of actions are used in various everyday tasks: "from sequencing sound in a speech to sequencing actions in typing or playing instruments to sequencing actions in driving an automobile. Sequence learning can be used to

study skill acquisition and in studies of various groups ranging from neuropsychological patients to infants. There are two broad categories of sequence learning explicit and implicit.

Explicit sequence learning has been known and studied since the discovery of sequence learning. However, recently, implicit sequence learning has gained more attention and research [4].

A form of, implicit series learning refers to the underlying methods of learning that people are unaware of—in other words, learning without knowing. The exact properties and number of mechanisms of implicit learning are debated [5]. Global education is a complex idea that is taught to enhance one's meaning of the world. Global Education is characteristically taught within the curriculum. Teachers of Global Education will integrate multiple dimensions, perspectives, and citizenships into everyday lessons [6].

Students learning to be global citizens through global education will be able to learn more about international communities, social justice issues, global events, and international ideas in their typical classroom setting. Global Education will shape the way people view the world to help better shape the world. It will foster service-learning initiatives and activism within the community and around the world [7].

MATERIALS AND METHODS

The study was conducted in Chennai with 100 students of higher education including medical and other professions. The sample size was calculated through G power analysis. The students were asked to fill the standard questionnaire 'index of learning style questionnaire' which contains 44 questions. The results were then tabulated and calculated. The questions are

I understand something better after I

- Try it out.
- Think it through.

I would rather be considered

- Realistic.
- Innovative.

When I think about what I did yesterday, I am most likely to get

- A picture.
- Words.

I tend to

- Understand details of a subject but may be fuzzy about its overall structure.
- Understand the overall structure but may be fuzzy about details.

When I am learning something new, it helps me to

- Talk about it.
- Think about it.

If I were a teacher, I would rather teach a course

- That deals with facts and real-life situations.
- That deals with ideas and theories.

I prefer to get new information in

- Pictures, diagrams, graphs, or maps.
- Written directions or verbal information.

Once I understand

- All the parts, I understand the whole thing.
- The whole thing, I see how the parts fit.

In a study group working on difficult material, I am more likely to

- Jump in and contribute ideas.
- Sit back and listen.

I find it easier

- To learn facts.
- To learn concepts.

In a book with lots of pictures and charts, I am likely to

- Look over the pictures and charts carefully.
- Focus on the written text.

When I solve math problems

- I usually work my way to the solutions one step at a time.
- I often just see the solutions but then have to struggle to figure out the steps to get to them.

In classes, I have taken

- I have usually gotten to know many of the students.
- Have rarely gotten to know many of the students.

In reading nonfiction, I prefer

- Something that teaches me new facts or tells me how to do something.
- Something that gives me new ideas to think about.

I like teachers

- Who put a lot of diagrams on the board.
- Who spends a lot of time explaining.

When I'm analyzing a story or a novel

- I think of the incidents and try to put them together to figure out the themes.
- I just know what the themes are when I finish reading and then I have to go back and find the incidents that demonstrate them.

When I start a homework problem, I am more likely to

- Start working on the solution immediately.
- Try to fully understand the problem first.

I prefer the idea of

- Certainty.
- Theory.

I remember best

- What I see.
- What I hear.

It is more important to me that an instructor

- Layout the material in clear sequential steps.
- Give me an overall picture and relate the material to other subjects.

I prefer to study

- In a study group.
- Alone.

I am more likely to be considered

- Careful about the details of my work.
- Creative about how to do my work.

When I get directions to a new place, I prefer

- A map.
- Written directions.

I learn

- At a fairly regular pace. If I study hard, I'll "get it."
- In fits and starts. I'll be totally confused and then suddenly it all "clicks."

I would rather first

- Try things out.
- Think about how I'm going to do it.

When I am reading for enjoyment, I like writers to

- Clearly say what they mean.
- Say things in creative, interesting ways.

When I see a diagram or sketch in class, I am most likely to remember

- The picture.
- What the instructor said about it.

When considering a body of information, I am more likely to

- Focus on details and miss the big picture.
- Try to understand the big picture before getting into the details.

I more easily remember

- Something I have done.
- Something I have thought a lot about.

When I have to perform a task, I prefer to

- Master one way of doing it.
- Come up with new ways of doing it.

When someone is showing me data, I prefer

- Charts or graphs.
- Text summarizing the results.

When writing a paper, I am more likely to

- Work on (think about or write) the beginning of the paper and progress forward.
- Work on (think about or write) different parts of the paper and then order them.

When I have to work on a group project, I first want to

- Have "group brainstorming" where everyone contributes ideas.
- Brainstorm individually and then come together as a group to compare ideas.

I consider it higher praise to call someone

- Sensible.
- Imaginative.

When I meet people at a party, I am more likely to remember

- What they looked like.
- What they said about themselves.

When I am learning a new subject, I prefer to

- Stay focused on that subject, learning as much about it as I can.
- Try to make connections between that subject and related subjects.

I am more likely to be considered

- Outgoing.
- Reserved.

I prefer courses that emphasize

- Concrete material (facts, data).
- Abstract material (concepts, theories).

For entertainment, I would rather

- Watch television.
- Read a book.

Some teachers start their lectures with an outline of what they will cover. Such outlines are

- Somewhat helpful to me.
- Very helpful to me.

The idea of doing homework in groups, with one grade for the entire group

- Appeals to me.
- Does not appeal to me.

When I am doing long calculations

- I tend to repeat all my steps and check my work carefully.
- I find checking my work tiresome and have to force myself to do it.

I tend to picture places I have been

- Easily and fairly accurately.
- With difficulty and without much detail.

When solving problems in a group, I would be more likely to

- Think of the steps in the solutions process.
- Think of possible consequences or applications of the solution in a wide range of areas.

RESULTS

Figure 1 depicts the percentage of Sequential learning(blue-15%), Global learning(orange-24%), and Well balanced (grey-61%).

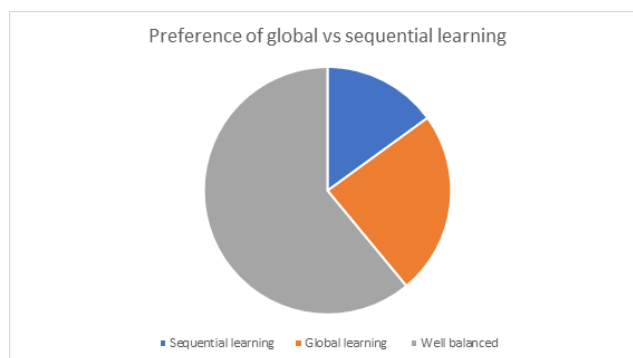


Figure 1: Percentage of Sequential learning(blue-15%), Global learning(orange-24%), and Well balanced (grey-61%).

DISCUSSION

There are several types of learning styles. Sequential and global style of learning is a type of learning style [8]. The study shows that students are well balanced in both

sequential and global styles of learning followed by global learning and then sequential learning (Figure 1) as seen in the previous study; the majority of the students are well balanced to both learning styles. Out of 100 higher education graduates who were analyzed 30% were medical students, 20% were dental graduates and the remaining 50% were engineering graduates. Overall the responses obtained that 61% of them were found to be well balanced with both the learning method, 24%, and 15%, of them were found to fall under global learning and sequential learning categories respectively. It was found that the majority of the graduates analyzed are well balanced. There were situation-based questions included in the questionnaire which helped in the analysis of the type of learning style followed by the subjects. But when considered overall global learning was preferred than sequential [9]. This is because Sequential learners absorb information and acquire an understanding of the material in small connected chunks, and global learners take in information in seemingly unconnected fragments and achieve understanding in large holistic leaps [10].

Studies [11] suggesting that left-brain (sequential) thinkers deal more easily with grammatical structure and contrastive analysis, while right-brain (global) thinkers are better at learning language intonation and rhythms [12]. The student with a sequential learning style depends on structural aid for their understanding whereas the student with a global learning style understands the subject by themselves even without structural aid. Therefore both types of learning styles can be adapted by the students and also global learning is more preferred than sequential learning.

CONCLUSION

From the study, we conclude that it is better to follow global learning and teaching methods in higher education institutions, though sequential learning is convenient to follow. The global and sequential learning styles exist on a continuum, with some people heavily favoring one or the other, and others using a little bit of both. As a result, ways for supporting global learners and sequential learners aren't mutually exclusive. A combination of these techniques can help all of our students.

ACKNOWLEDGMENT

None.

CONFLICT OF INTEREST

None.

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