Learning Styles based Checklist for Instructional Material Features in E-learning

Aim of the Research

Determining the gratified learner characteristic from the features in an e-learning environment.

Learning Styles

- Learners have different preferences, styles and characteristics in processing information.

- Over the years there are several learning style models proposed to categorize the preferred way of learning by variety of learners.
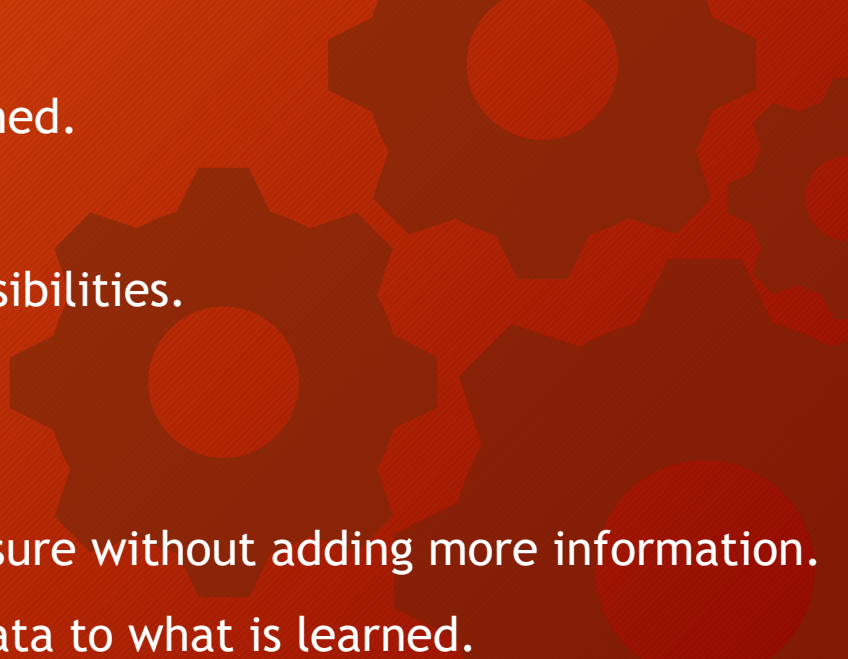
Learning Styles

1. Myers-Briggs Type Indicator

2. Kolb's Learning Style Model

3. Herrmann Brain Dominance Instrument

4. Felder-Silverman Learning Style Model

5. Honey Mumford Learning Style Model

6. 4MAT's Learning Styles

7. VARK Learning Style Model

Learning Styles – Learner Characteristics

Myers-Briggs Type Indicator

- Extravert: Learns by trying out and cooperative learning.

- Introvert: Learns by thinking and individually applying what is learned.

- Sensor: Learns by focusing on procedures and facts.

- Intuitive: Learns by imagining and thinking of the meaning and possibilities.

- Thinker: Learns by considering about the facts, rules and logic.

- Feeler: Learns by considering humanistic and personal aspects.

- Judger: Learns by following an agenda or a plan and try to find closure without adding more information.

- Perceiver: Learns by adapting to changes and trying to add more data to what is learned.

Learning Styles – Learner Characteristics

Felder-Silverman Learning Style Model

- Active: Learns by hands-on experience.

- Reflective: Learns by thinking and understanding.

- Sensing: Learns through clear facts and details. Prefers to follow a well-known procedure.

- Intuitive: Learns through abstract information and try to discover new possibilities.

- Visual: Prefers to learn using visual presentations such as pictures, graphs, animations etc.

- Verbal: Prefers to learn by listening and reading.

- Sequential: Learns step by step in an organized environment.

- Global: Prefers to learn randomly in a creative manner.

Unique Learner Characteristics

A list of unique learner characteristics discussed all seven learner style categorization models.
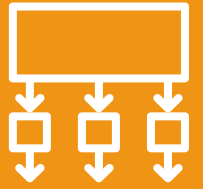
Features in an E-learning Environment

A list different features in an e-learning environment which gratifies the identified learner characteristics.

Features of an e-learning Instructional Material or Learning environment	Myers-Briggs								Kolb's				HBDI				Felder-Silverman								HMLS				4MAT's				VARK			
	Extravert	Introvert	Sensor	Intuitive	Thinker	Feeler	Judger	Perceiver	Diverging	Assimilating	Converging	Accommodating	External	Internal	Interactive	Procedural	Active	Reflective	Sensing	Intuitive	Visual	Verbal	Sequential	Global	Activist	Reflector	Theorist	Pragmatist	Feel and Reflect	Think and Reflect	Think and Do	Act and Create	Visual	Audio	Reading	Kinesthetic
Learning materials include quizzes and activities for learner to try out things.	X	X									X	X			X	X	X								X					X		X				X
Learning environment provide facility to collaborate and learn via groups chats, forums etc.	X								X						X										X				X							
Learning materials are organized as procedures and knowledge is represented as facts.			X		X					X									X								X									
Learning environment provides a clear process of how the learning will happen.							X					X											X					X			X					
Learning materials does not include in detail information. Knowledge is represented in an abstract manner.							X													X									X							
Learning materials provide a summary or conclusion of the knowledge at the end.							X																													
Learning environment provides additional resources which will further enhance the knowledge of learner.								X											X	X												X				
Learning environment provides self-paced learning.										X																X										
Majority of the learning happens via reading materials.										X			X									X								X					X	
Majority of the learning happens via instructional videos and visual aids.																					X												X			
Majority of the learning happens via audio materials.																						X				X								X		
Learning materials are enriched with demonstrations of the content.																															X					

What are the next steps?

- Validate the checklist.

- Identify more features in different types of learning environments and improve the checklist.

- Implement an automated tool to derive the level of target learner gratification from the features in an online learning environment.