Welcome To

The 2nd **International** Conference On Science & **Mathematics Education**



Penang Malaysia

Presenter



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Presentation Roadmap

1. Introduction

What is Constructivism?

2. Who is Who in Constructivism?

- Jean Piaget
- Jerome Bruner
- Vygotski

3. Case study

4. Conclusion



Title

Welcome To Constructivism



Introduction

- Paradigm of learning
 - Process of knowledge formation
 - Many faces of constructivism





- With one common goal
 - Learning is a hunt for meaning
 - Individual development
 - Present and the past experience

Who is Who

in Constructivism?



Jean Piaget



Jerome Bruner

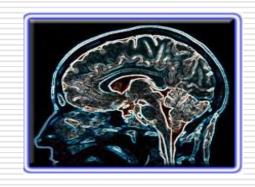


Vygotsky



1. Jean Piaget

- Learners have an internal cognitive organization and that's why they understand the world better.
- We see objects not only with our eyes but also with our minds.
- One year old sees objects at their level of development





*3-year-old sees the same object with a higher-level of Thinking.



Jean Piaget

Human is always in constant evolution.

Four stages:

Sensorial (0-2 what you give)

Pre-operational (3-7 Conversation)

Concrete (8-11) (School age)

Formal (12-15) (Adult like)

learners interact with

the environment:

Consistent, will be integrated. Inconsistent, will be adopted accordingly.

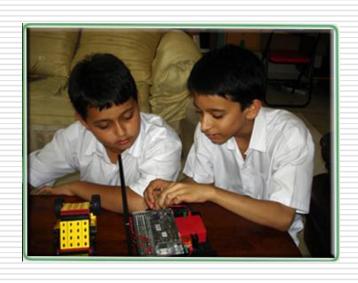




2. Jerome Bruner

- The learner is active, constructive, collective, goal oriented, investigative and thoughtful.
- Education is student-centered and learners construct knowledge through their own investigation





Learning in a constructivist environment is discovery based and meaningful



Jerome Bruner

- Learners must learn collectively and it will lead them towards a meaningful life
- Teachers also should arouse the learners' interest in the content material and must make the information relevant.



Learners remember things with the view of meaning in their minds not just facts. When learner retrieves information he/she makes a discovery.



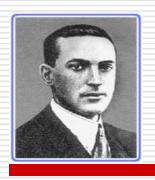
3. Vygotsky

- ✓ Social interaction has the most fundamental position in the development of cognition
- ✓ This is the culture which mediates our mental actions.



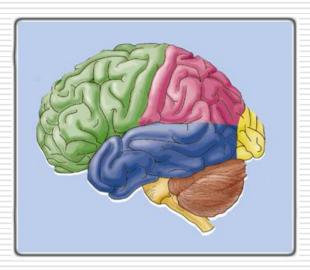


✓ Signs, concepts, languages guide the behavior of a child. When a child is born the initial function of his/her speech is social interaction. (mother-father)



Vygotsky

- ✓ Language acquisition takes place more when children interact with each other in the foreign language environment.
- ✓ The lower function of the brain is genetically gifted to a person.





✓ The higher brain function develops when we socially interact with the environment.

Summary



Jean Piaget

- Learning is to reason.Solve problem through reason.
- Human is in constant evolution. Knowledge is through invention.
 - Learning is exploration.Feedback and practice.



Jerome Bruner

- Learning through engagement.Give chance to decide.
- Meaningful learning. Learning is through meaningful dialogue.
- Learner thinks critically. Learning is discovery. Group learning

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Vygotsky

- ✓ Learning through socio-cultural signs. Culture develop intellectuals.
- ✓ Culture mediates our action.
- ✓ Culture teaches us what to think and how to think.

Thank You

