

Adaptive Learning

*Have you finished with this slide?
Then please proceed ...*

The Miracle

“If, by a miracle of mechanical ingenuity, a book could be so arranged that only to him who had done what was directed on page one would page two become visible, and so on, much that now requires personal instruction could be managed by print.”

(Thorndike, 1912)

Vocabulary

Individualized learning

Meaningful and personalized feedback that can accommodate a diversity of students.

Programmed Instruction

A graded sequence of controlled steps

Adaptive Learning

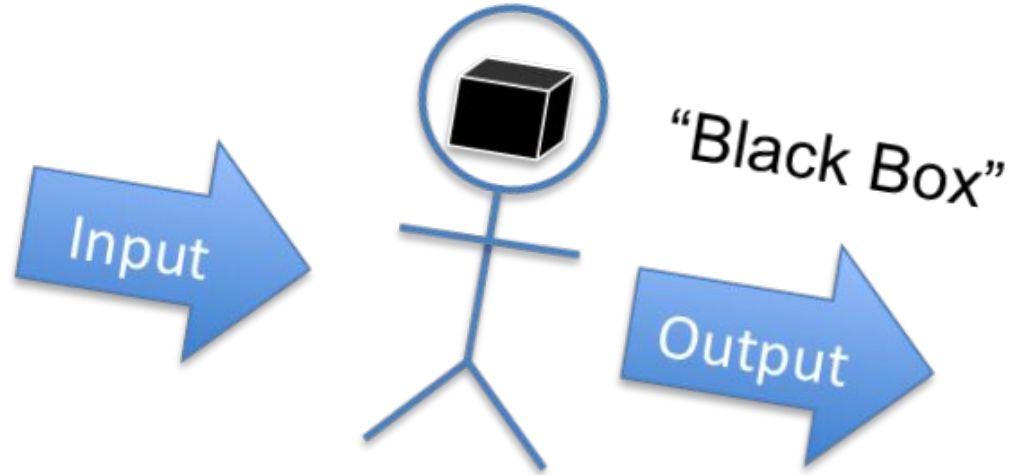
Individualized programmed instruction with dynamic, immediate, process-oriented feedback and assessment

History and Theoretical Foundations

Behaviorism: Operant Conditioning-Skinner (1953)

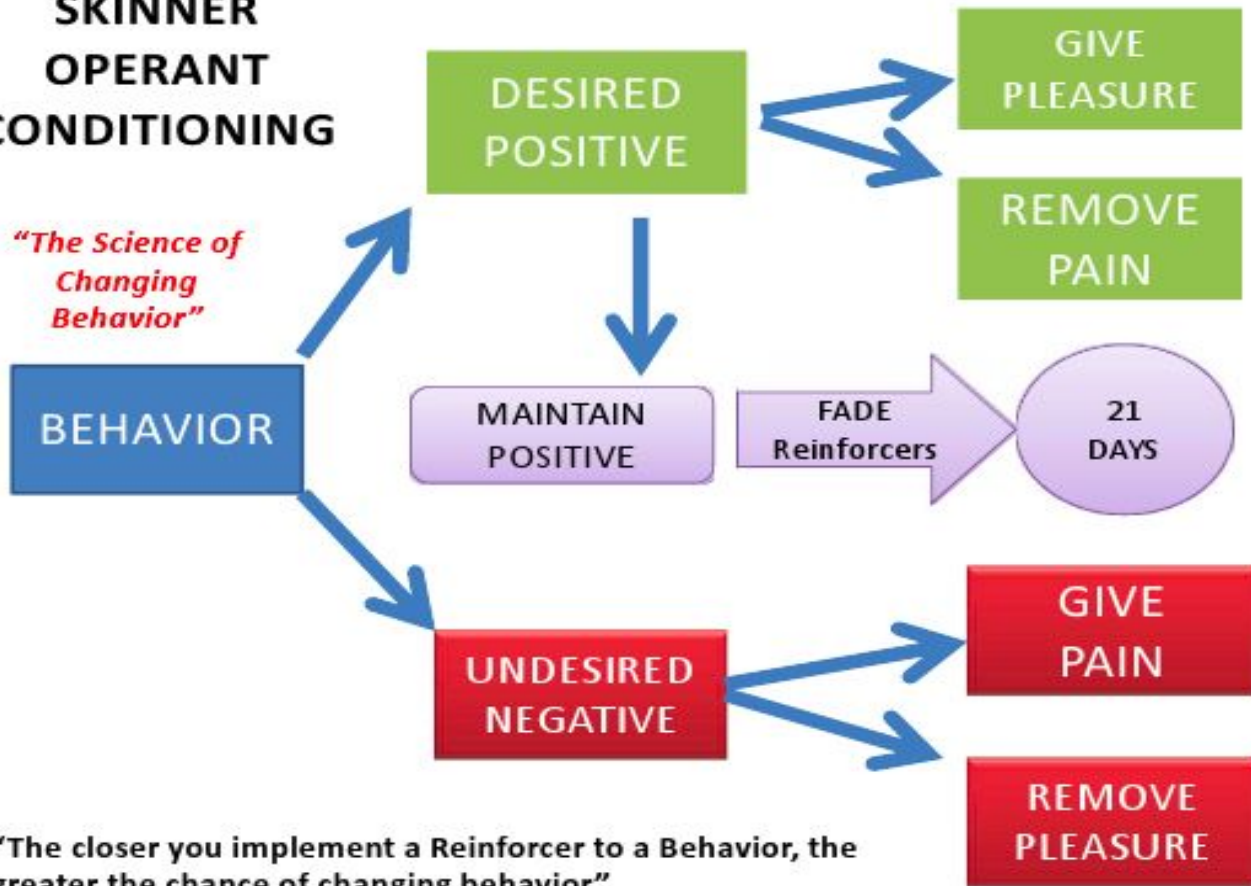
Not Species Dependent

Child's behavior is a function of "automatic reinforcement."
Desired behavior is rewarded, undesired behavior is punished.



SKINNER OPERANT CONDITIONING

*"The Science of
Changing
Behavior"*



"The closer you implement a Reinforcer to a Behavior, the greater the chance of changing behavior"

VERY HUNGRY



CillBinton 10 months ago

If only they could put electric wires beneath me to make me do some work instead of watching this video

Reply · 8  



Gewalt 1 month ago

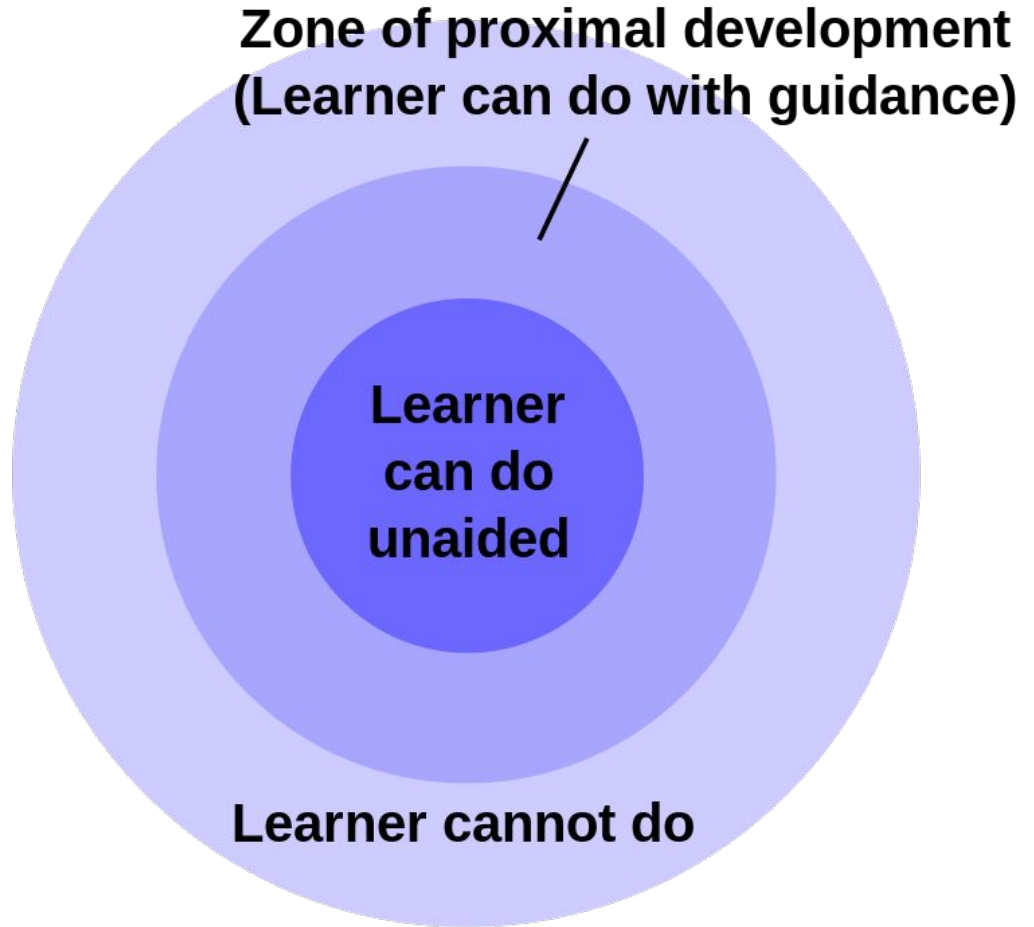
boy, i wish i had this luxury too. more potent shocks each time i started being lazy

Reply ·  

Skinner's teaching machine



Cognitive Psyc:
Vygotsky's ZPD
(1934)





A Venn diagram with two overlapping circles. The left circle is red and contains the text 'ZPD:' followed by a bulleted list. The right circle is blue and contains the text 'Operant Conditioning' followed by a bulleted list. The intersection of the two circles contains a bulleted list of two items.

ZPD:

- Internal
- Cannot be observed
- Change in knowledge
- Transforming existing knowledge

- Previous knowledge determines pathway
- Objective to improve learning, create change

Operant Conditioning

- Behavior change through conditioning
- External stimuli
- Observable change
- Sequential

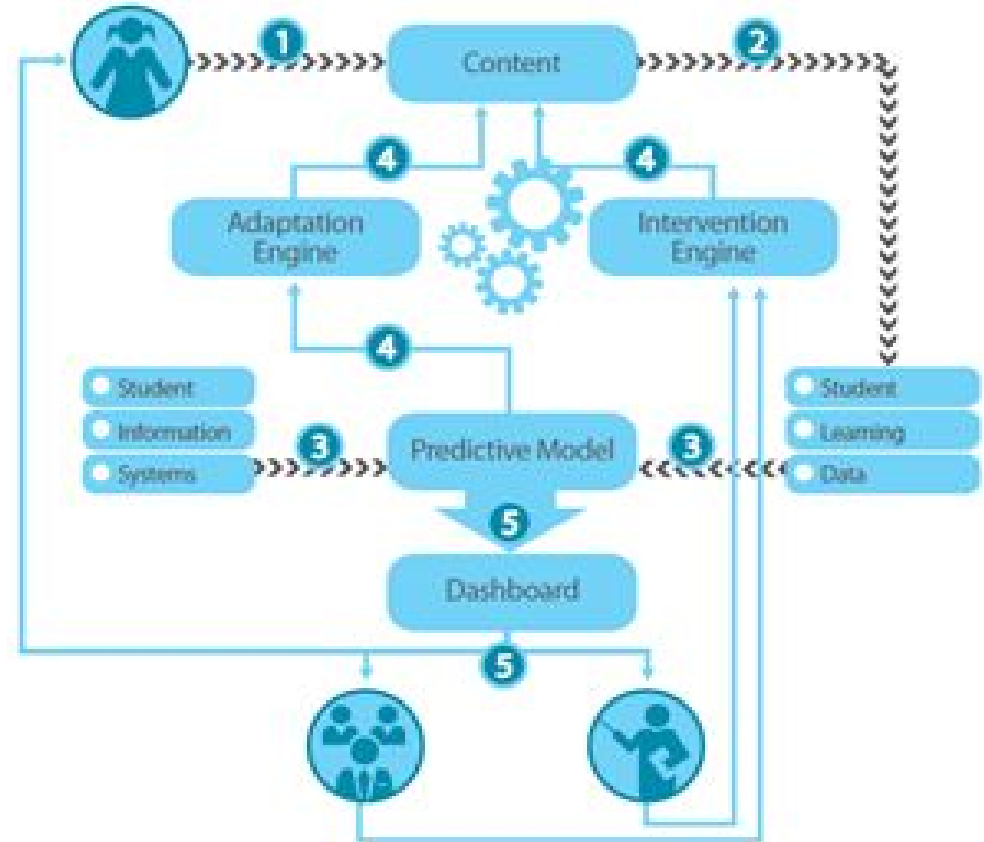
Implementation



FEATURE

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Web Based



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August 25, 2016



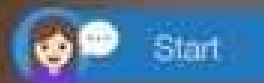
0 Comments

Mondly launches first voice Chatbot for learning languages



Hello

1/4



Start



Advantages

- **Adaptive dynamic assessments** (Wu, 2017; Simon-Campbell & Phelan, 2016)
 - Immediate feedback
 - Customized items
 - Reduce length of test and time
 - Decreased anxiety
 - Identifies areas for remediation
 - Positive results from primary through calculus level students.
- **Delivery**

Disadvantages

- Missing social learning context (this is changing)
- Effectiveness of reinforcement derives from work done with animals (Carini, 1961)
- What is positive reinforcement?
- Motivation (Simon-Campbell & Phelan.,, 2016).
- Arguable problems with extrinsic rewards (Eisenberger & Cameron, 1996)
- Delivery

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