Refresh & Debrief: Chapter 4

From behaviorism to mastery learning

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Reminder of Chapter 3: **Behaviorism**

**How do people learn?** *By conditionning*

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*analytics*
Reminder of Chapter 2: **Behaviorism**

How do people learn? *By reinforcement*
How do people learn? ➔ Which technology for learning?
Reminder of Chapter 2: **Behaviorism**

How do people learn? ➔ Which technology for learning?

**Drill & Practice, Courseware, e-Learning**

**Mastery Learning:** Controlling the acquisition of correct responses through a sequence increasingly complex situations, regulated by immediate feedback.
Knowledge space

Instructional Design

Digital courses
Criteria For Grading Assignment

1. Did you decompose the goal into steps?
Criteria For Grading Assignment 2

1. Did you decompose the goal into steps?
2. Are learners active and get feedback?
Criteria For Grading Assignment 2

1. Did you decompose the goal into steps?
2. Are learners active and get feedback?
3. Do you keep control?

Description
This is a course given to refugees in the age of 14-20 with some prior knowledge of math (6-9 years). The course aims to teach the students about Standard Deviation (SD) over a 5 day period. Throughout the course the students will be given a series of tests to evaluate the level of their skill and to determine whether they have learned enough to proceed in the class. If a student does not have the needed skills they will be retaught and will thereafter have to take a test to confirm that they have acquired the needed knowledge. This step can be repeated if needed. To improve the students understanding of the taught material they will frequently be grouped up in the groups they will need to explain concepts to each other. This is to improve their declarative knowledge. An effort is also made to accommodate different learning needs of students by giving them either group work or individual work.

Activities
A1: The teacher gives a short introduction to the course - what will be covered, what are the learning objectives and how is it structured.
A2: Students take a pre-requisite test to determine the level of knowledge of basic statistics. This is done in order to ensure that all students will have the required knowledge for taking the course and learning about SD.
A3: The students that based on the test didn't meet the pre-requisites are given a lecture to catch up. The teacher gives those students a crash course in basic statistics. The lecture includes an example of a population and sample - the sample being the class. The students are introduced to frequency, mean, median, min & max.
A4: The students that met the pre-requisites are given an optional exercise. This is a video lecture on statistics from Khan's Academy.

Operations
O1: Decomposition: Those students who fail the pre-test moves on to a basic lecture in statistics
O2: Decomposition: The students that already have the basic skills are given an optional exercise
O3: Students that fail the test move to A7
O4: Prerequisite: Students that pass the intermediate test qualify for the next module
O5: Students that prefer working in a group proceed to exercise A11
O6: Students that prefer working individually proceed to exercise A12
O7: The teacher goes through the tests and makes some statistics based on the results to be shown in the final session.
Criteria For Grading Assignment 2

1. Did you decompose the goal into steps?
2. Are learners active and get feedback?
3. Do you keep control?
4. Is the graph well formed?
Criteria For Grading Assignment 2

1. Did you decompose the goal into steps?
2. Are learners active and get feedback?
3. Do you keep control?
4. Is the graph well formed?
5. Did you specify the labels?

+ Creativity Bonus
Mastery Learning

Trial & Error