How Adaptive Has the Potential to Increase Student Intrinsic Motivation to Persist

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Adaptive Learning: A Collaboration
- **Micro-adaptive** system identifies the ideal learning path (or sequence) for the learner at each step, based on algorithms, in real time.

- Learning **sequence** system tailors the learning sequence to the needs of the individual, based on their responses and knowledge profile.

- **Learning** oriented adaptive systems focus on optimizing the learner’s mastery of a topic.
Paradigm Shift

Linear Representation of Knowledge

Very common in most learning management systems.

Relational Representation of Knowledge

Based on teaching algorithms that depend on inter-related discrete units of knowledge.
Critical units of knowledge (default learning path)

Additional units of knowledge (learn more/supplemental learning path)

Supporting units of knowledge (recommended remedial learning path)
Launching Courses: Intro to Micro Economics

Canvas Interface

Jan 13-19 Module #2: Trade-offs & choices

- Introduction to Scarcity & Choices
- Ch 2 (text)
- CogBooks content
- Questions on Trade-offs & Choices? Ask them here.
- Module #2 practice quiz
- Introduce yourself
- Trade-offs & Choices Quiz
# Microeconomics

**View Introduction**

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Time</th>
<th>State</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>An Introduction to Microeconomics</td>
<td>19 min</td>
<td>8/14</td>
</tr>
<tr>
<td>2</td>
<td>Trade-offs and Choices</td>
<td>1h 40 min</td>
<td>0/10</td>
</tr>
<tr>
<td>3</td>
<td>Supply and Demand</td>
<td>1h 25 min</td>
<td>0/13</td>
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<tr>
<td>4</td>
<td>Elasticity: Delving Deeper into Supply and Demand</td>
<td>1h 28 min</td>
<td>0/10</td>
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**Required Sections Complete:** 0/9

**Estimated Time Needed:** 13h 9 min
Economic Systems

Economic Systems: Part 1 - Video

Click here to open the video in a separate window or watch directly below.
The video describes about Economic systems.

Enter your questions or comments for the instructor here. Click one of the buttons below to submit.
Click on a set of facts to understand and help analyze.

Benefit of the economic living choice.

Deciding what should be produced.

Deciding how to produce.

Deciding for whom to produce.
How Adaptive Has the Potential to Increase Student Intrinsic Motivation to Persist

PART II

Why / how does it work
(from a student / learning perspective)
How / why do Adaptive platforms engage the student(s)?

Are there elements common to effective: Adaptive  Personalized Gamified / Gameful Design / CBE / Direct Assessment / Inspiring teaching ?

What are the principles / intrinsic motivators behind them:

What elements can be teased out to accentuate student engagement?

Engagement or time on task as studies show, is the best (available) proxy for likely learning and retention of materials (Kuh, 2009, US DoE report 2010)

Schell (2010) has referred to this concept of increasing user stickiness or propensity to stay on page as the psychology of engagement
"Mowing the lawn or waiting in a dentist’s office can become enjoyable provided one restructures the activity by providing goals, rules, and the other elements of enjoyment."

Mihaly Csikszentmihalyi
Flow (1960)
The Motivator list

1) Tasks have clear goals and parameters / achievement is tangible yet achievable.
2) Rules exist that are clearly stated.
3) Concentration is required (by the student)
4) There are possibilities for conflict, competition and/or cooperation among participating students.
5) Time is stressed as a limiting factor (to encourage focus)
6) Reward structures are inherent to the system and clear to the students.
7) Immediate & Continual Feedback is provided.
8) A sense of progressing through levels is apparent.
9) Storytelling narrative is involved or can be.
10) Curve of Interest – the journey through the materials evolves.
11) Aesthetics – the courseware is attractive and designed intentionally to be so.
12) Fear of failure is reduced, as it is clear in the system that Replays or Do Over-s are available.
13) Student has clear control over her/his actions.
14) The student participates with effortless involvement – it is clear what is expected from the moment of engagement.
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Emphasized in AL – SYSTEMS – with CTA/Designed content & support

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Emphasized in AL – SYSTEMS – with CTA/Designed content & support.
Ped-AL to the Metal – the succinct list

1) Clear expectations – students need to be able to understand what they have to do – quickly (human beings)

2) Appropriate level of challenge – *dopamine release activated and available to promote, sustain, or repeat some mental or physical effort when the outcome is not assured. If there is no risk, there is no reward* (50% -> maximum release)

3) Immediate, Corrective feedback (CTA) – Mayer / Clark

4) Sense of progress / journey or narrative (addictive learning)

5) Aesthetics / Narrative?
References


Questions?

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