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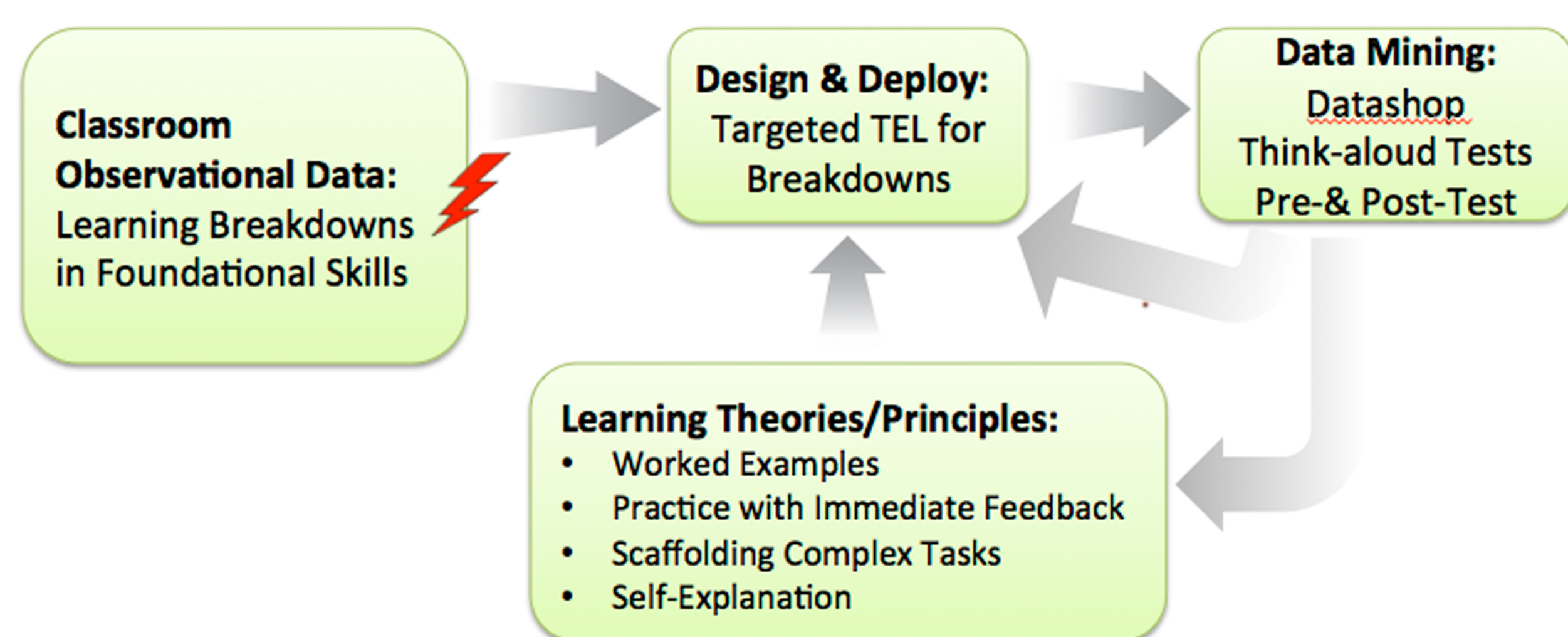
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An OLI-based Tutor for Teaching Prose Style

Objective: Provide students with enough opportunities for goal-directed *practice* and timely, detailed *feedback* for students to achieve *mastery* of a foundational writing skill

Project Design



Lessons Learned

We built the Prose Style Tutor—implemented in OLI—in response to the challenge of providing students with enough opportunities for goal-directed practice and timely, detailed feedback. The tutor employs worked examples, scaffolding for complex tasks, feedback and self-explanation activities designed to help students make relevant discriminations and take specific actions to achieve goals. We have collected and analyzed think-aloud data as well as data on students’ errors, and we have produced component skill models for the data.

- Deployed in all sections of 76270 Writing in the Professions
- Students who have used the tutor have made pre-/post-test gains in their ability to revise sentences according to principles of prose style.
- Some students still struggle with revising nominalizations effectively

We are currently

- Running a field test of a version of the tutor that employs self-explanation in order to see whether it improves learning.
- Using applied machine learning to build models that can predict correct and incorrect responses to the prose style exercises in order to provide students with more targeted feedback.

Project Evaluation

EXAMPLE

The investigation of the design and internal organization of the nineteenth-century asylum has become the focus of recent studies in the history of insanity.

- If actions are expressed in nominalizations, make them verbs:
 investigation → investigate
 design → design
 organization → organize
 focus → focus
 studies → study
- Find plausible agents for the actions:
 Scholars investigate
 Officials or Administrators or Wardens design
 Officials or Administrators or Wardens organize
 Scholars focus
 Scholars study
- Rewrite the sentence so that the agents are the subjects of the verbs:
Scholars investigating the history of insanity have recently focused on how officials designed and organized the nineteenth century asylum.

Worked example showing the steps in revising nominalizations into action verbs.

learn by doing

Consider the following sentence:
 The **implicit assumption** of this response is that history is reversible.

- Identify the nominalization that refers to an action and is the subject of an empty verb.
 response
- Change the nominalization into a verb.
- Identify or supply a plausible agent for the action expressed by the verb.
- Rewrite the sentence by replacing the nominalization + empty verb with the new verb, and making the agent the subject.

Submit and Compare

Scaffolding complex tasks and practice with immediate feedback

Score	Mean (SD)
Pre-test	4.3 (1.3)
Post-test	5.6 (1.4)

The Prose Style tutor had a statistically significant effect on pre- vs. post-test scores on a test of prose style, $F(1, 67) = 46.78, p < .001$. Pre-test scores range from 2-8 on a 0-9 scale; post-test from 3-9.

Analysis of individual items on the test indicates that there is room for improvement in revising nominalizations.

Pre-test/post-test results from field study of all sections of 76270 Writing in the Professions.

