

1-31-2013

ThinkAboutIt: A framework for learner-learner and learner-expert interactions

Roger Bruning

University of Nebraska-Lincoln, rbruning1@unl.edu

Follow this and additional works at: <http://digitalcommons.unl.edu/dberspeakers>

Bruning, Roger, "*ThinkAboutIt*: A framework for learner-learner and learner-expert interactions" (2013). *DBER Speaker Series*. 30.
<http://digitalcommons.unl.edu/dberspeakers/30>

This Article is brought to you for free and open access by the Discipline-Based Education Research Group at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in DBER Speaker Series by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Abstract for DBER Group Discussion on 2013-01-31

Presenter, Department(s):

Roger Bruning

Professor

Department of Educational Psychology

Title:

ThinkAboutIt: A framework for online instruction, learner-learner, and learner-expert interactions

Abstract:

Roger Bruning will describe an online system, *ThinkAboutIt* (TAI) that gives learners opportunities to make and justify decisions about content, compare these decisions to those of others, and access experts' judgments. TAI has been used in a variety of contexts, including judging quality of children's writing samples (elementary-level literacy education students), value of differing testing and measurement strategies (teachers), utility of NOAA and other weather products for farming decisions (farmers), and effectiveness of medical case presentations (medical students). The presentation and discussion will focus on TAI's general design features, their ties to cognitive and motivational theory, and how these features can be incorporated in online and classroom instruction.

ThinkAboutIt: A framework for learner-
learner and learner-expert interactions

Roger Bruning
Center for Instructional Innovation
Department of Educational Psychology

ThinkAboutIt (TAI) is a web-based
framework for:

- Judging complex content
- Making and justifying multiple judgments
- Providing coaching as needed
- Receiving expert and peer feedback

Some Focal Problems in our Work with TAI

- Decisions about testing (teachers)
- Judging writing quality (pre-service teachers)
- Utility of weather/climate data (farmers)
- Quality of case presentations (physicians, medical students)

Learning Dimensions Available in TAI

- Making decisions
- Providing rationales for decisions
- Practicing on multiple “cases”
- Real problems
- Feedback
 - Expert
 - Peers
- Coaching
- Choice

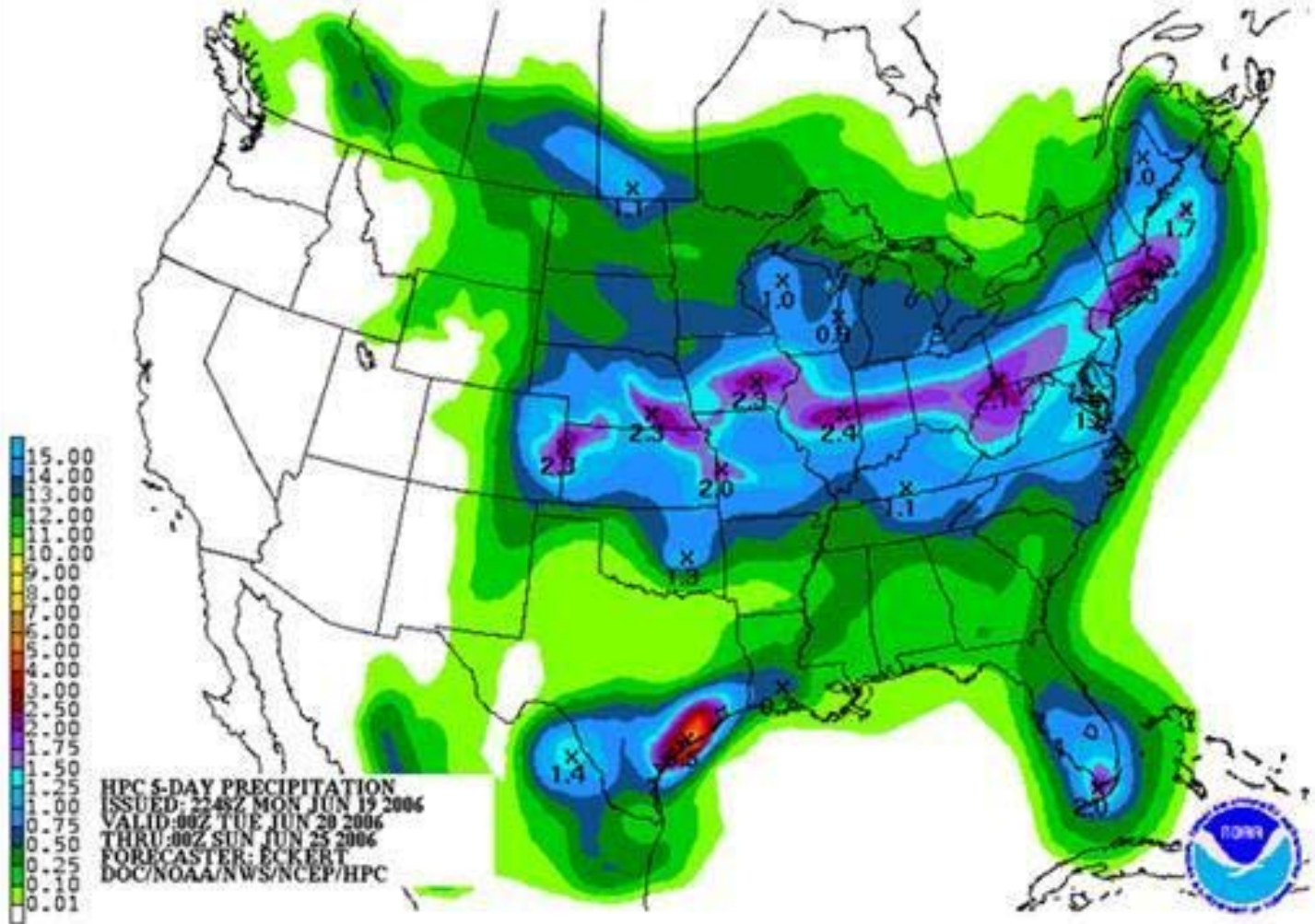
Hamptire Escape

On Friday night a hamptire escaped out of her playground. My mom's hamptire named Pip went dog explor. My mom's other hamptire named Squick staded in the playground.

Five-Day Precipitation Forecast

Interpret

Apply





Grade

4th Grade

8th Grade

11th Grade



Traits

Ideas/Content

Organization

Voice

Word Choice

Sentence Fluency

Conventions



Account

My Progress

Post-Test

Logout



Ideas/Content



Below are samples of student writing, listed by their first sentence. Select a paper, and assign a rating for the trait of **Ideas/Content**. Please provide a justification for your rating using terminology from the rubric.

Before beginning, please take a look at the following excellent paper. When viewing it, click on the expert button to see what an expert says about it.

" I love my Grandma Johnson's tea partys, they are always fun. My Grandma has a beautiful set of tea cups, ..."

4th Grade Narrative Writing Samples

Rated

1	" On Friday night a hampstire escaped out of her playground. My mom's hampstire name Pip went dog explor. ..."	<input checked="" type="checkbox"/>
2	" One day I asked my mom if cold be in the x teams. My mom said yes but she ..."	<input checked="" type="checkbox"/>
3	" One day my sister promised my brothers and I to go to the movies. So we went. We ..."	<input checked="" type="checkbox"/>

Grade

4th Grade

8th Grade

11th Grade

Traits

Ideas/Content

Organization

Voice

Word Choice

Sentence Fluency

Conventions

Account

My Progress

Post-Test

Logout

Site

Overview

Ideas/Content



4th Grade Narrative Writing Sample

Writing Prompt: Think of an event you will want to remember when you are old. Write a story about what happened so that if you read this story again when you are eighty, every detail will seem as clear as if it happened yesterday.

Hampstire Escape

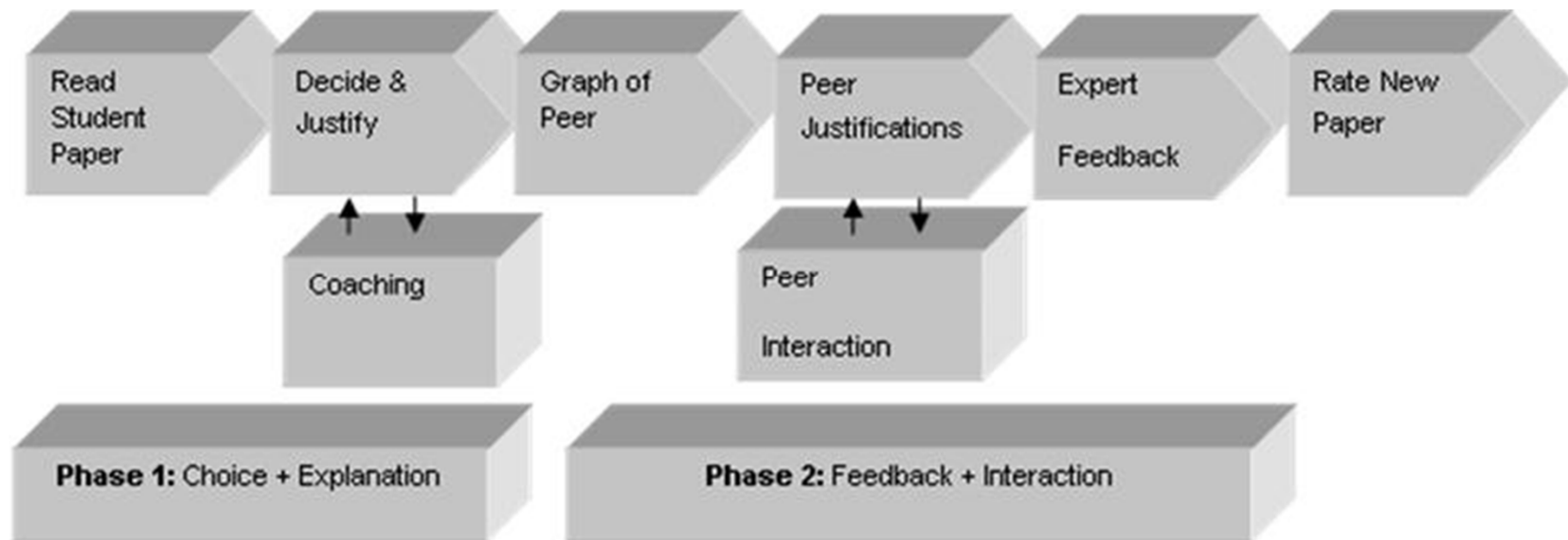
On Friday night a hampstire escaped out of her playground. My mom's hampstire name Pip went dog explor. My mom's other hampstire named Squick staded in the playground.

[\[Printer friendly version\]](#)

Rubric: Ideas/Content

BEGINNING Not yet showing any control	PROGRESSING Need for revision outweighs strengths	PROFICIENT Shows control and skill	ADVANCED Exceeds expectations
1	2	3	4
<ul style="list-style-type: none">■ communicates a very confused message■ contains no supporting details■ lacks a topic	<ul style="list-style-type: none">■ communicates a somewhat confusing message■ contains limited details■ often wanders from topic	<ul style="list-style-type: none">■ communicates a message■ contains some relevant details■ occasionally wanders from topic	<ul style="list-style-type: none">■ communicates a precise, clear message■ contains sufficient, relevant details■ stays on topic

TAI Sequence (Student Writing)



The Evolution of Psychology Theory

- Behaviorism
 - Key concepts: Association, repetition, reward
- Cognitive Psychology
 - Key concepts: Meaning, prior knowledge, active learning, constructed knowledge
- Social Cognition
 - Key Concepts: Social origins of learning, modeling and imitation, situated learning

Some questions to ask ourselves

Are we giving our students...

- ...real problems to make judgments about?
- ...criteria for warranting their judgments?
- ...opportunities to warrant their choices?
- ...chances for peer interaction?
 - See their peers' choices?
 - See criteria peers are using to make their choices
- ..."rich" expert feedback?
- ...enough repetitions to insure learning?
- ...meaningful choices about their learning?

Thank you!

- Questions or comments?

ThinkAboutIt: A framework for learner-learner and learner-expert interactions

Presentation to the DBER Group, January 31, 2013

Roger Bruning

Center for Instructional Innovation, UNL

Presentation Summary

ThinkAboutIt (TAI) gives learners opportunities to make and justify decisions about content, compare their decisions to others, and access experts' judgments. TAI has been used in a variety of contexts, including making decisions about quality of children's writing (preservice teachers), value of differing assessment approaches (teachers), utility of NOAA and other weather products for farming decisions (farmers), and effectiveness of medical case presentations (physicians, medical students). The focus of this presentation/discussion was on TAI's general design features, their origins in learning theory, and how these features might be incorporated in online and classroom instruction.

Some questions about our own instruction: Have we provided students with...

- real problems to make judgments about?
- criteria for making their judgments?
- opportunities to warrant their judgments?
- chances to interact with peers?
 - Seeing their peers' choices?
 - Seeing criteria their peers use to make their choices?
- "rich" expert feedback, including criteria utilized?
- enough repetitions to insure learning?
- meaningful choices about their learning?

Selected references

PytlikZillig, L. M., Hu, Q., Hubbard, K. G., Lynne, G. D., & Bruning, R. (2010).

Improving farmers' perception and use of climate predictions in farming decisions: A transition model. *Journal of Applied Meteorology and Climatology*, 49, 1333-1340.

Pytlik Zillig, L., Horn, C., Bruning, R., Bell, S., Liu, X., Siwatu, K., Bodvarsson, Kim, D., & Carlson, D. (2011). Face-to-face vs. computer-mediated discussion of teaching cases: Impacts on preservice teachers' engagement, critical analyses, and self-efficacy. *Contemporary Educational Psychology*, 26, 302-312.

Dempsey, M., PytlikZillig, L., & Bruning, R. (2009). Helping preservice teachers learn to assess writing: Practice and feedback in a web-based environment. *Assessing Writing*, 14(1), 38-61.

Igo, L. B., Bruning, R., & McCrudden, M. T. (2005). Exploring differences in students' copy-and-paste decision making and processing: A mixed methods study. *Journal of Educational Psychology*, 97, 103-116.

Bruning, R., Siwatu, K., Liu, X., PytlikZillig, L, Horn, C., Sic, S., & Carlson, D. (2008). Introducing teaching cases with face-to-face and computer-mediated discussion: Two multi-classroom quasi-experiments. *Contemporary Educational Psychology*, 33(2), 299-326.