SkillsTutor Hybrid ESL Transition Math Class Pilot PPT Transcript
Kimberlee Raper-TALGS Conference 2013- East Carolina University-

Slide 1 Title

Slide 2 Background Interview with Jan Fisher

1. What is SkillsTutor? SkillsTutor is an online program for independent-study being used to help Basic Skills students, including Advanced ESL students, improve competencies in all subject areas.
2. Why is PCC conducting a SkillsTutor hybrid pilot program?
Many advanced ESL students are trying to transition from ESL to GED and there is a need for a transitional course to help these students cross that bridge, so this year we offered SkillsTutor as an online class to our ESL students. A number of ESL students who want to get their GED are using the program, however, with the ESL population, there is a definite need for an additional face-to-face mathematics class, so we are offering the SkillsTutor hybrid to interested students.
3. Selection of SkillsTutor instructors?
There are 2 ESL instructors trained to facilitate the DE component, but none of our ESL instructors would even consider teaching the face-to-face math class, so when Kim Raper contacted me about a position back in April, and based on her educational background and experience working with GED and developmental studies students here at PCC, especially in math, then I knew she was a God-send! The class appears to be going great so far, and attendance is up.
4. What are you hoping to accomplish?
Many Advanced ESL students would like to transition to GED but don't feel adequately prepared for the mathematics component, so the hybrid class will give hopefully them the extra support they need to make the transition. What we hope to accomplish with the hybrid class is to get more of the local ESL population interested in participating in our programs and to see our advanced students successful transition from ESL to GED. Also, student retention in Project IDEAL and SkillsTutor is of utmost importance, and is essentially measured by the total number of students who are both pre and post-tested. Retention rate for the hybrid= 88%

Slide 3 Introduction with Pictures

Project IDEAL- Improving Distance Education for Adult Learners- All PCC ESL students are part of this grant-funded program
CASAS- Comprehensive Adult Student Assessment System- for Language only- does not measure math- minimum score 221 to
SkillsTutor independent study- PCC offered two classes of SkillsTutor for math, one completely online, one a hybrid
TABE- Test of Adult Basic Education- pre-test scores- used for assessment, to identify weaknesses, targeted F2F instruction/mid-semester test scores-for comparison- improvement in competencies?/post-test- after project date

Slide 4 Research Question- Pythagorus cartoon- Hypotenuese

Slide 5 Objectives- Answer each question now

1. Why enrolled?
To transition to GED program
2. Weaknesses?

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Everything from Basic Concepts- addition, subtraction, multiplication, division to fractions, decimals, percent, plus geometry, pre-Algebra and Algebra
Need to learn/relearn terms, symbols, specific mathematics vocabulary
3. How hybrid class helps?
Face-to-face instruction provides immediate feedback & assistance, Peer tutoring, group work, low stress, fun
4. Language proficiency impact mathematics performance?
Some, but not significantly- for some students this is their first time learning math terms/concepts in L2/ others relearning them in the L2- not a major issue for advanced ESL students. They helped each other A LOT with this!
5. Most helpful aspects of the hybrid?
Supported the online component
Regular F2F instruction, one on one tutoring as needed, group work, peer tutoring, used L1 in class as needed to talk about concepts, explain, etc., these students shared the experience, encouraged one another, were motivated to stick with it-
YOU ARE NOT ALONE, WE'RE ALL IN THIS TOGETHER!

SLIDE 6 SAMPLE TABE SCORES PRE-MID
TABE math pre-test measures competence in computation and application.
Computation includes: basic math, fractions, decimals, integers, division, multiplication, percentages and pre-algebra;
Applied includes: word problems, geometry, measurements and data interpretation
Pre-test scores provided the foundation for L2 f2f class instruction based on specific areas of weakness-
There seems to be a correlation between student math scores and f2f instruction- this may attributed to regular interaction with and support from peers and the teacher.
TABE scores measure current level of mathematical proficiency, detect any prior knowledge of the subject, pinpoint areas of weakness
Mid semester TABE scores – overall 50% class increase from pre-test scores

Slide 7 Literature review Main Ideas - Confusing Terms
What kinds of articles used?
2 case studies- Using SkillsTutor math for ABE Programs
Successful math programming for migrant students
Investigative- The relationship between English language and mathematics learning
Assessment- Linguistics complexity and graphic representations for English language learners in math tests
Technical report- language proficiency and mathematics performance

THE TECHNICAL LANGUAGE OF MATH NEED TO BE TAUGHT TO EVERYONE, NOT JUST ELLS- TERMS AND SYMBOLS ARE UNFAMILIAR & SPECIFIC TO MATH-
NOT NECESSARILY AN L1-L2 PROBLEM- JUST NEW VOCABULARY IN GENERAL

Slide 8 Pictures (3/2 fraction/pi are square/find x/)
1. A boy from rural NC came home from college. His Pa asked,"Well, son, did ya larn ne thang ?" to which the son replied, "I learnt in my geomatree class that pi are square." His Pa just shook his head and said, with a snort, "I tol' ja they'd fill yor head with mush…why everbody knows pie are round, cornbread are square**!"**
2. Prior knowledge and educational level may significantly impact the ELLs mathematical performance
3. ELLs tend to be disadvantaged in mathematics as far as understanding or knowing subject specific or technical terms
4. ELLs tend to rely on pictures and graphs to figure out word problems
5. ELLs need to learn the LANGUAGE OF MATHEMATICS-
    - New and/or previously learned concepts that have been forgotten
    - Unfamiliar terminology
    - Specific vocabulary for geometry and algebra

Slide 9
Some instructional strategies to implement for teaching math to ELLs:
- Taking an holistic approach- interconnectedness btw mind, body, spirit
- Teaching to various learning styles
- Allowing group work/peer tutoring
- Allowing use of the L1 to better understand concepts taught in the L2

Slide 10
Organizational Culture
At PCC= learner centered-
ESL population= respected, supported, encouraged

Slide 11 Participants
Project IDEAL Advanced ESL Students
Enrolled in SkillsTutor
Transitioning from ESL to GED
Minimum CASAS score 221
Commitment to f2f support class/ 4 hour week/ 16 weeks

Slide 12 Method- Examples of instructional strategies/difficult concepts and terms

Slide 13 More examples of Potentially difficult concepts and terms
All students needed to learn/relearn the basics in the L2 before attempting to learn more difficult concepts- worked together on hands-on activities and assigned tasks.

Slide 14 NOT your TYPICAL word problem, but for ESL students, some may seem this linguistically confusing

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