Old belief that math was less of a demand on ELL students

Vocabulary/ Syntax – concept made up of the relationship between two words

"All number greater/less than X"

" Mary earns 5 times as much as John"

Vocabulary/Semantics Difficulties –

"Words that are different from everyday meanings (eg. set, point, field, column, sum, random, table, altogether, round, equals)"

www.Coursecrafters.com

Word Problems

"... word problems are artificial situations described using the mathematical language of problem solving..."

"word-problemese."

HANDOUT

Create Story problems using voc within EL students’ known voc

Differentiate numbers and voc

Talk it out – Draw it out

www.Coursecrafters.com & esl-programs

Diverse Learners

Process needs to be direct, explicit, and transparent

ELL connections may be to native language – similarities and differences

Remember just because they speak a language they may not read or write it.

Strategies:

Slow Speech

Relate to real life

Relate to experiences of the student

Graphic Organizers

Limited use of Idioms

(Blachowicz & Fisher, 2006)

Other Instructional Ideas

Reducing the Language Demands- Scaffolding EX:

"Find the solution by adding X and Y"

"Solve by adding X and Y"

Add X and Y to solve

X + Y = ______

Use Simple Verb Tenses and Constructions EX

"Try to select..." "Select..."

"Carefully explain..." "Explain..."

"Give a detailed description..." "Describe..." SEI

(Flores, 2009)

Use of visuals

Manipulatives

Delaying the use of certain kids of abstract voc

Use Flow Charts and Graphic Organizers

Incorporate Cognates

Avoid Introducing New Concepts or Process and New Voc Together

Use of Technology

Use of decimal point and comma vary – Measurement too?

(Flores, 2009)
• Simplify Sentence Structure
• Delay the Use of Pronouns
• Repeat Patterns of Language, Then Paraphrase
• Prioritize Voc
• Make the Language of Mathematics More Demanding Over Time
  ▪ (Flores, 2009)

• How about the symbols?
• Charts and Graphs?

References
• www.Coursecrafters.com
• www.esl-programs-lessons.suite101.com