Observations: Math Skills Missing in NTID Students from Placement Tests and in Class

NRSC/DeafTEC Math Conference 2022

Matt Stefano

Tuesday November 8, 2022
NTID Math Coordinator Responsibilities

- Set up and carry out math placement test
- Determine incoming student math placements
- Advise students on their placements
- Liaise with RIT School of Mathematical Sciences
- Work with RIT Registrar
Summer Vestibule Program (SVP) - Math Placement Test

- Taken online over the summer
- 50 questions – Prealgebra through College Algebra
- 7 questions – Trigonometry
- Faculty team reviews/confirms math placement
  - Review math placement test results
  - Review HS/College transcripts
  - Review ACT score if given
Observations from Placement and Interviews

- Students are missing basic skills that help them succeed in math courses
- Students have seen the content but don’t remember how to solve
  - $2 + 5 = ?$
  - Graphing
- Students must master skills to be ready for the next course
## NTID SVP Math Placement Statistics

<table>
<thead>
<tr>
<th>Math Course</th>
<th>SVP 2018</th>
<th>SVP 2019</th>
<th>SVP 2020</th>
<th>SVP 2021</th>
<th>SVP 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prealgebra</td>
<td>21.2%</td>
<td>21.2%</td>
<td>22.4%</td>
<td>26.3%</td>
<td>35.1%</td>
</tr>
<tr>
<td>Advanced Mathematics (College Algebra)</td>
<td>22.4%</td>
<td>29.8%</td>
<td>25.0%</td>
<td>20.0%</td>
<td>16.0%</td>
</tr>
</tbody>
</table>
Areas of Weakness for Today’s Students

- Number Sense
- Fraction Skills
- Word Problems
- Graphing
- Academic Maturity
Number Sense

- Computing numbers without using a calculator
- Being able to factor numbers
- Visualizing numbers using different approaches
  - Ex: 4(15)
- Developing estimation skills
Fraction Skills

- Determining the lowest common denominator
- Having confidence working with fractions
- Understanding and incorporating fractions everywhere
  - Word Problems
  - Algebra Equations
  - Real life experience
Word Problems

- Using word problems in every lesson
- Being able to solve multiple step fractions
- Identifying key terms and breaking word problems into parts
Graphing

- Applying different approaches to graphing algebraic equations
  - Identifying slope and y-intercept
  - Using table to plot coordinates
  - Determining x-intercept and y-intercept

- Knowing parent functions
Academic Maturity

- Having notes and materials ready for class
- Realizing that there are different ways to approach and to solve problems
- Having confidence to ask meaningful questions
- Independently concluding if an answer make sense
- Doing assignments on time
Time for Q & A

with Moose and Matt Stefano
Matt Stefano: Contact Information

- Any questions? Email me at mjsntm@rit.edu