



College Level IK Mathematics (ALTERNATIVE Delivery) Courses for AT-RISK students

Jillian Knowles

&

Nancy Nickerson



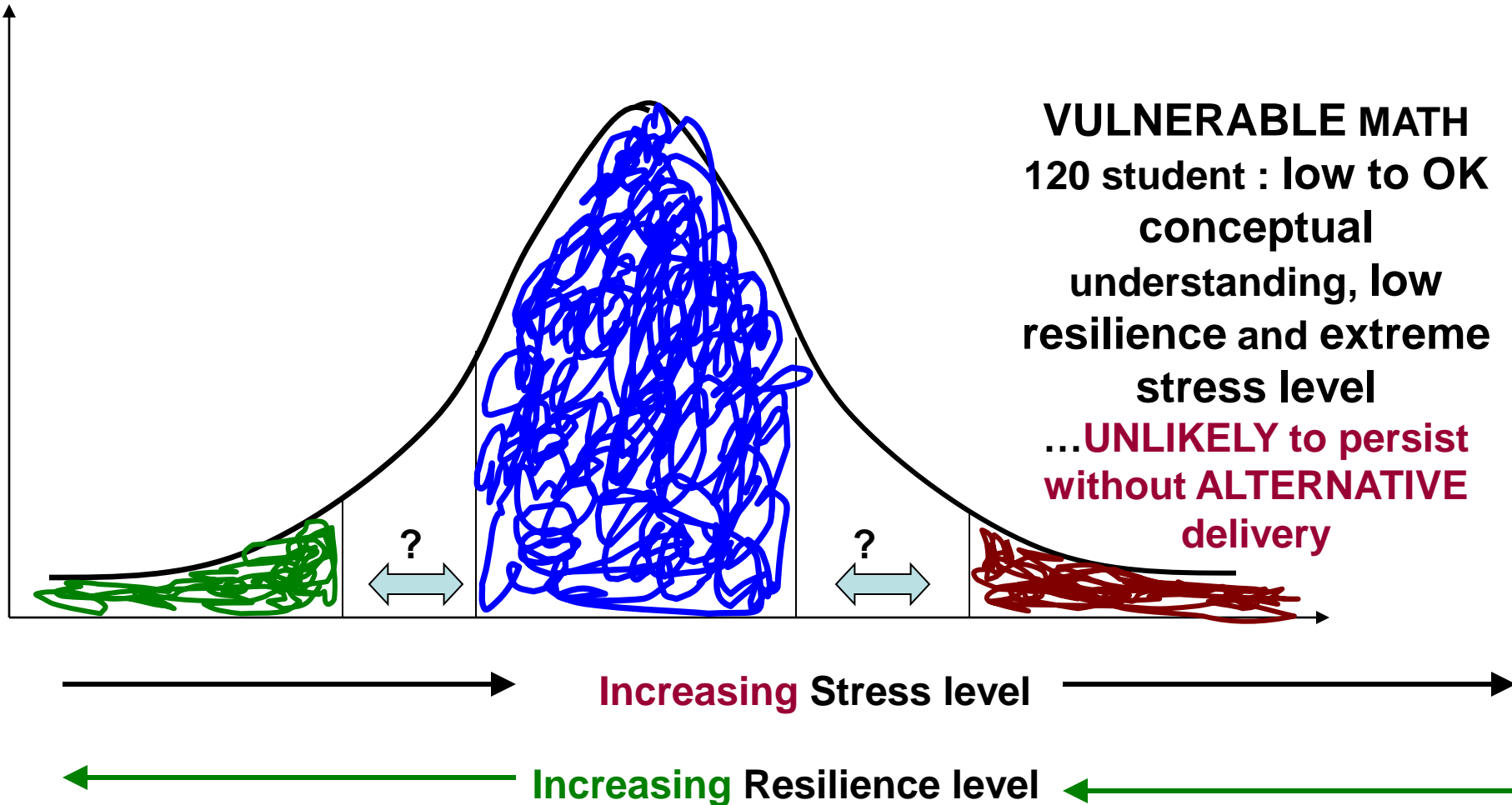
Why not the same MAT120 (College Algebra) for everyone?

“The measure of a society is how it treats its most vulnerable members”

...Ghandi, Dietrich Bonhoeffer, Hubert Humphrey, Pearl Buck, BSME NECC Division and Math Department, ...

NECC chooses to help its most vulnerable College Algebra students **recover and grow** with ALTERNATIVE Delivery (IK) MAT120 [and MAT 171 IK] classes

MAT120 Student Stress & Resilience Index



College level MAT IK ALTNATIVE Delivery Courses

Key Components

- **Self Referral** and **referrals** by Developmental Math Faculty and Advising Center Personnel (approx 1/20 College Algebra students)
- Small teacher-student ratio ≤ 15 students [perhaps split into two groups]
- Linked with/delivered in **Achieving the Dream Math Resource and Tutoring Center C300**
- Supported by **Achieving the Dream Math Resource and Tutoring Center C300** personnel

Emphasis on Students' **Relational Mathematics Recovery** through:

- Understanding, developing/repairing the Mathematics Self
- Changing **fixed trait** mindsets to **growth** mindsets
- Repairing **teacher** and **mathematics attachments**

College level MAT IK ALTERNATIVE Delivery Results

Semester & Course	completion rate	mathematics-self recovery rate
Spring 2009 <ul style="list-style-type: none">MAT120 IK	97% (-3% illness)	* individual triumphs; * ongoing assessments...
Fall 2009 <ul style="list-style-type: none">MAT 171 IKMAT 120 IK	100% 100%	* individual triumphs; * ongoing assessment...
Spring 2010 <ul style="list-style-type: none">MAT 120 IK	in progress	* in progress

Ongoing Development of IK College Math Course Models to reach exceptional NECC math students

- Placement by referrals...student interview? [AND by drop-back into later starting class??]
- Individualized (Linda in Developmental) versus Small class/smaller group (Nancy/Jillian)
- Solid line link with Math Support Center (some or all of class time IN the center)
- Technological support: Smart Board in class/tablet and laptop; Web-based homework/quiz support...; graphing calculator support ; group computer access in MathLab
- IK Class/classes for advanced College Algebra students [ONE course to get to Calculus instead of 2???

College level MAT IK ALTERNATIVE Delivery

Challenges and Questions

- How do we **efficiently identify** exceptional students [at **each** end of the curve?]. ...BEFORE the semester begins...after first assessment for a Draw-Back...
 - Issues of instructor/advisor awareness
 - Issues of student commitment...interview/contract???
- Optimal **class size** in relation to **level/type of support** for class ...
“SI” leader in/outside class? Math Support Center time?
 - Issues of space
 - Issues of group computer access and smart technology
 - Issues of scheduling
- Follow-up... **what constitutes success?**
 - Reducing overall failure rates at NECC?
 - Being able to take and succeed in a regular/IK math class after?
 - Changing mind about self as a math person?
- **Scalability**...how does NECC assess relative value of student progress per NECC \$/Professional time input?