

# Developing Reading Proficiency

*Using Accuplacer as a Tool for Research and Assessment*

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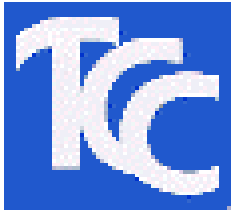
Tulsa Community College

League for Innovation in the Community College

Innovations Conference 2004

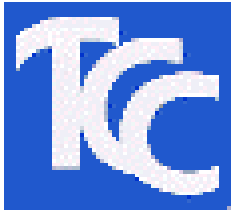
San Francisco, CA

March 3, 2004



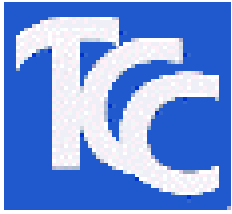
## New statewide requirement

- In 1994: OSRHE required all higher education institutions to require reading competency for incoming student admission
- The regents allowed for institutional discretion to implement the requirement



# Assessing college reading competency

- Can our students read?
  - How do we know?

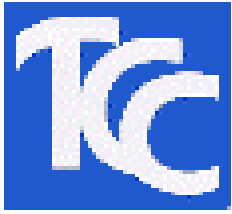


## Prevailing Assumption:

- Student success *does not* depend solely on taking developmental courses.

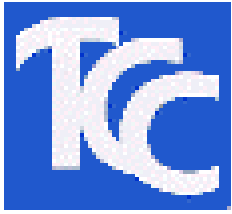
THEREFORE:

- Developmental courses should be optional.



## Tulsa Community College's approach:

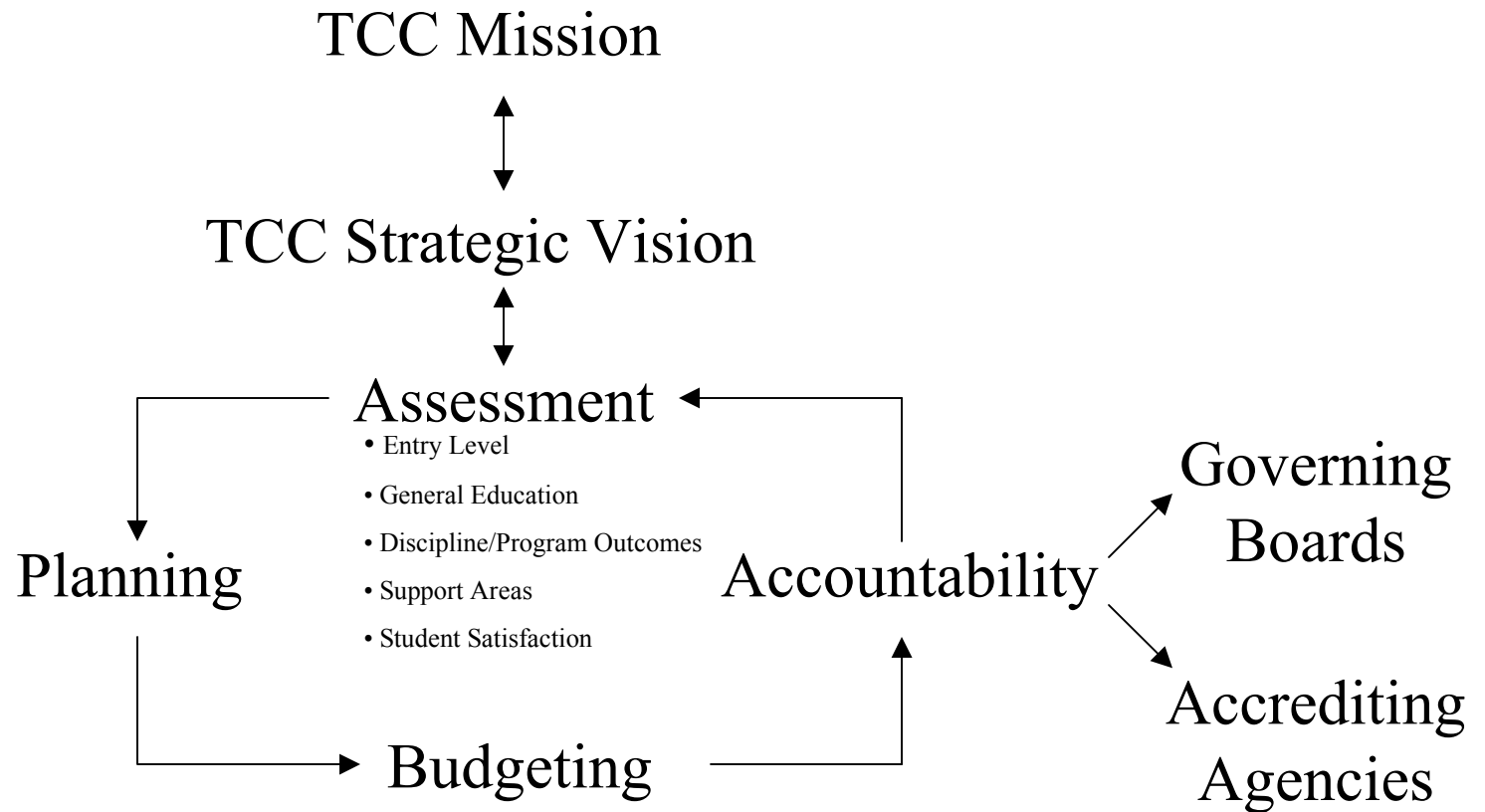
- *Mandatory **assessment*** of reading skill at college entry
- *Mandatory **advisement*** of developmental options for students below college level
- ***Optional** enrollment* in developmental reading courses



## Time passed, things changed:

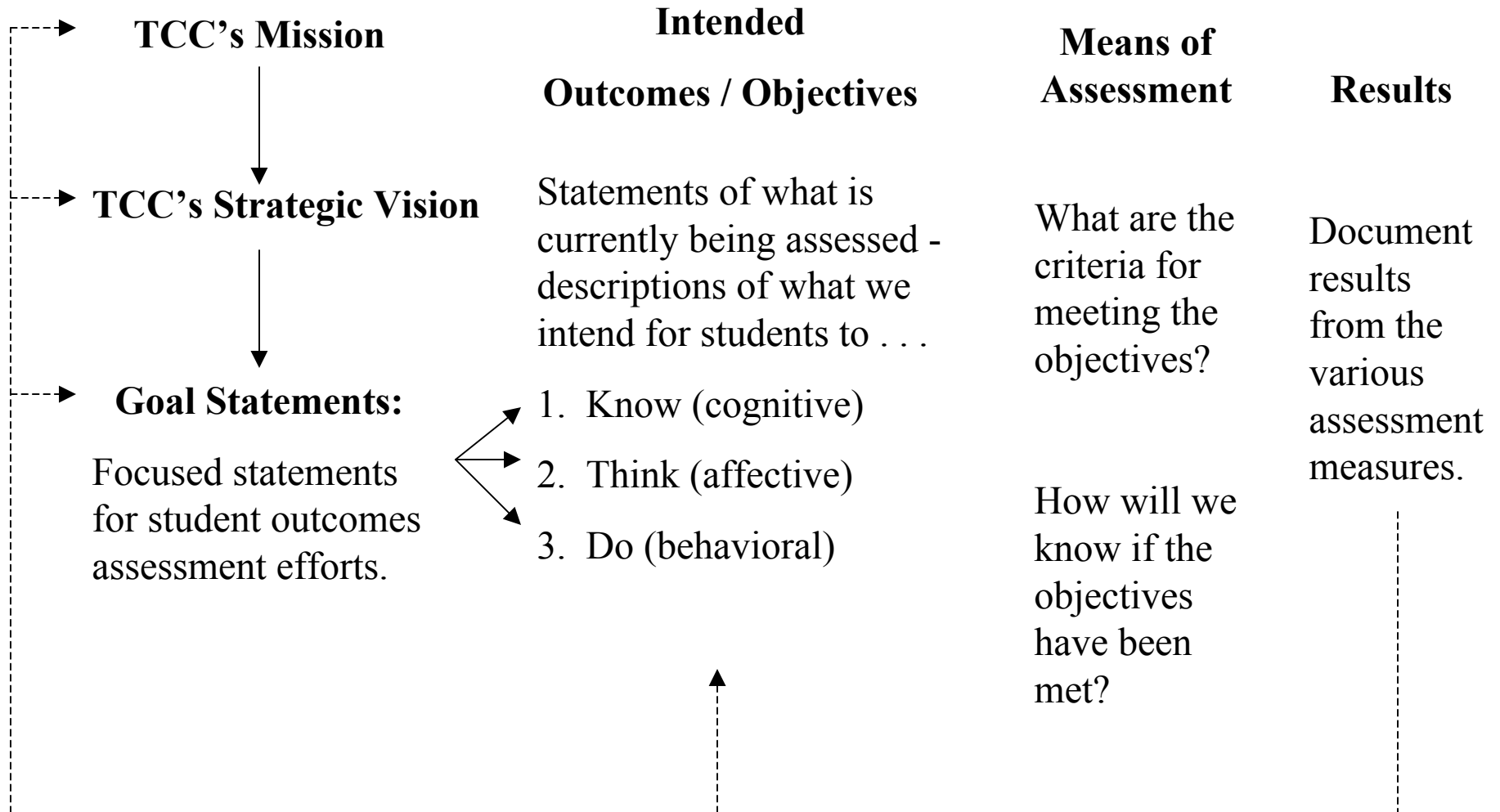
- 1999: new student information system changed TCC's enrollment procedure
- Increasing sense of institutional accountability
- Increasing concern for student success

# Links Between Assessment of Learning Outcomes, Planning and Budgeting

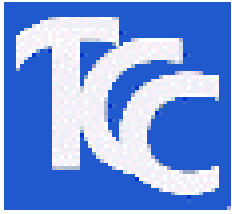


# Linkage between the Institution's Mission Statement and Use of Assessment Results

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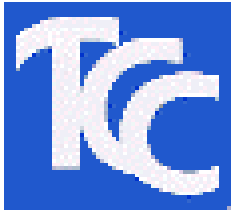




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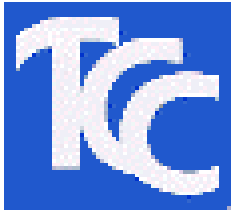
## Entry Level Assessment Committee's Goals:

- ***Effectively apply*** the OSRHE reading competency requirement
- Allow maximum student ***autonomy***
- ***Encourage reading skill development*** in ways that improve both student attainment and performance



## Guiding Principles

- Identify and “stick to” your mission.
- State your assumptions *a priori*
- Listen to the data, but rely on your expertise and experience.
- Be open and willing to change directions midstream, or at least consider alternatives.

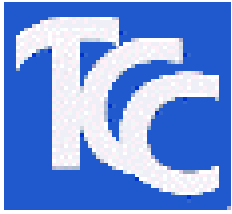


## New Hypothesis:

- Student success is directly connected to taking developmental courses.

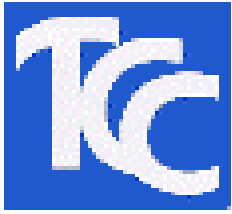
### THEREFORE:

- Developmental courses should be *mandatory* and should *precede* college level work.



## Proposal:

- ***Restrict*** enrollment options for students who need reading development
- ***Test*** restrictions for effectiveness through performance data
- ***Evaluate*** the effectiveness of the developmental program

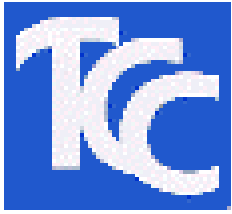


## Assessment Tool:

### The College Board's *Accuplacer* Computerized Placement Test

Successful placement program in mathematics:

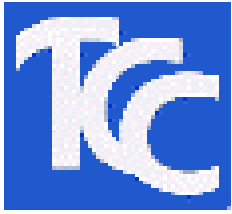
- Validation studies over 7 years
- Placement program for:
  - College level mathematics
  - Developmental mathematics



## Assessment Tool:

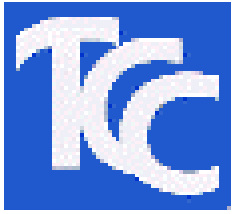
### The College Board's Accuplacer CPT Reading Comprehension

- College-Level:  $\geq 80$
- Underprepared: 66 – 79  
(1 developmental Reading Course)
- Seriously Deficient:  $< 66$   
(2 developmental Reading Courses)



## Initial Faculty Recommendations:

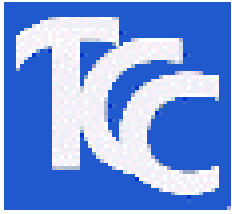
- Restrict enrollment in certain courses to students with demonstrated college level reading competency.
- Require reading skill development BEFORE enrollment in college courses
- Require qualifying cut score for Reading II
- Measure improvement in Reading I and II
- Consider mandatory development



## The Study

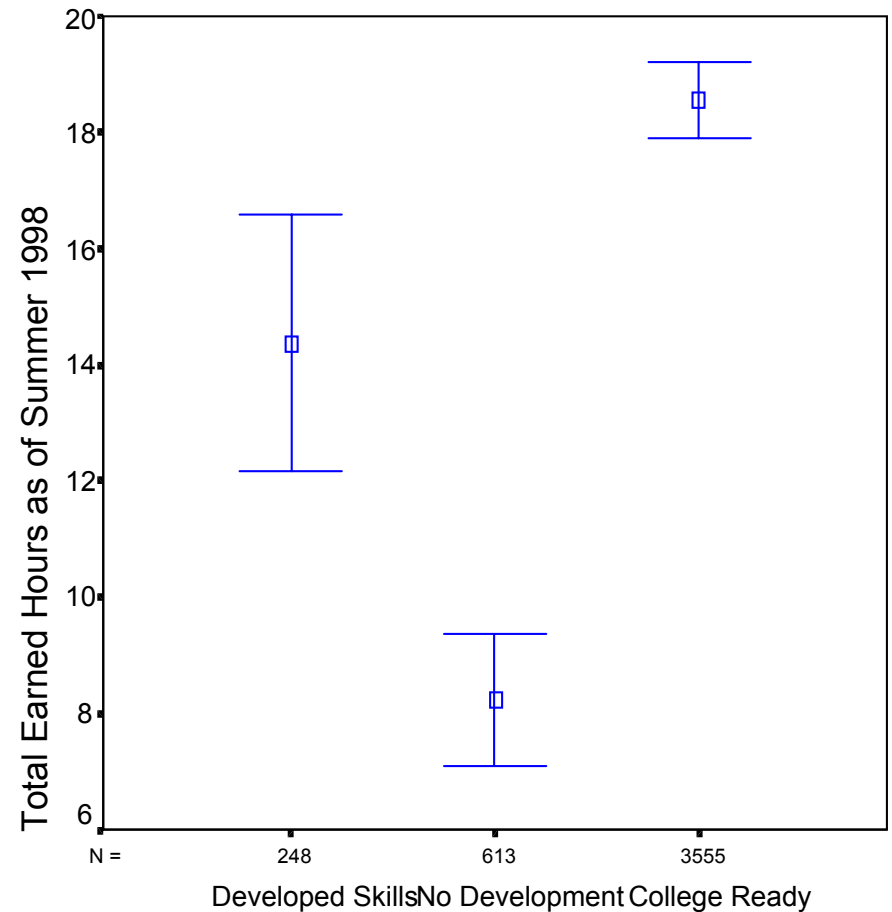
- Select the cohort
- Classify entering students by their developmental path
- Analyze academic attainment and performance after 3 years

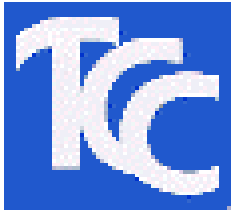




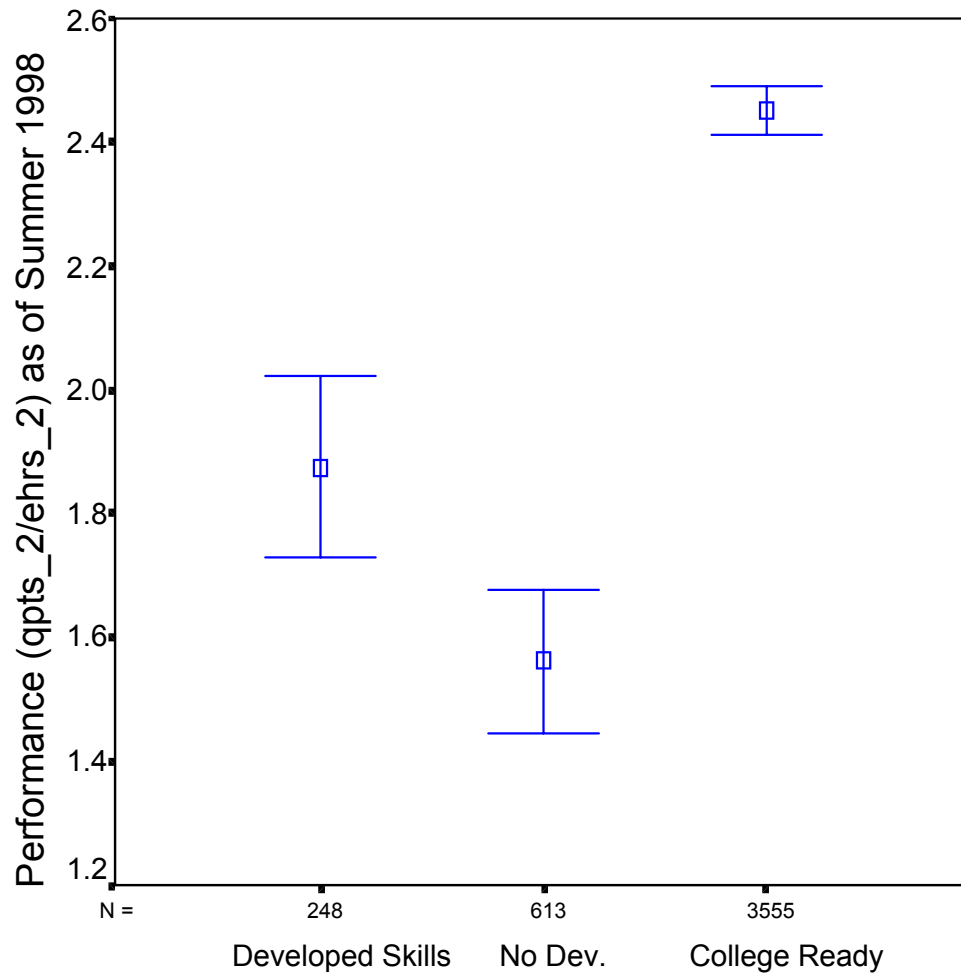
## Preliminary Results: Attainment

- Students who develop their skills earn more hours than those who need to develop but don't.
- Development makes a difference for student persistence.

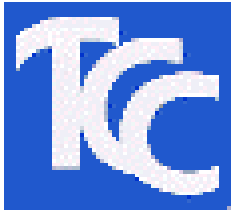




# Preliminary Results: Performance



- Students who develop their skills outperform those who need to develop but don't.
- Development makes a difference for student performance.

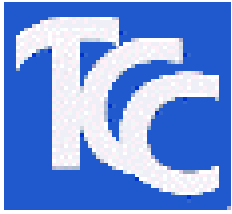


## What we learned:

- Development matters!
- Student success *is directly related* to taking developmental courses.

## THEREFORE:

- Development should be mandatory.



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## Conclusion #1:

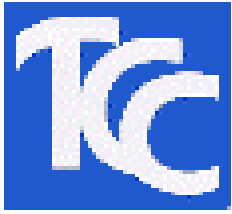
- Developmental courses improve student success.

THEREFORE:

- Developmental courses should be *mandatory*.

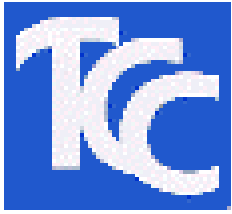
## Recommendation #1:

- Block enrollment for reading proficiency as originally planned in preliminary recommendations.

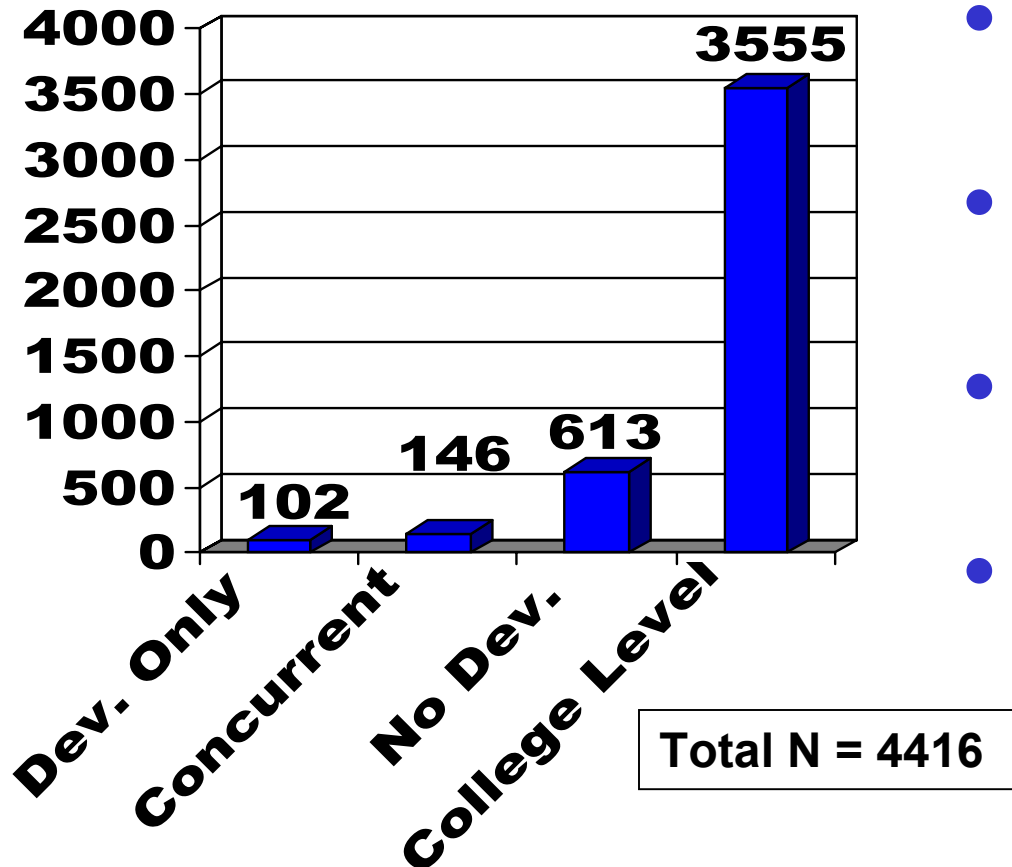


## New Question:

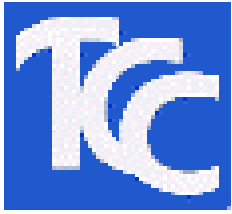
- Should development be complete before enrolling in restricted courses?
- Faculty recommendation: **YES**



## Developmental options:



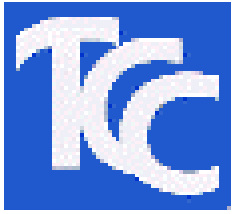
- **Group 1:** only developmental courses
- **Group 2:** developmental and college level courses
- **Group 3:** no developmental courses
- **Group 4:** entered at college reading level



## Assessment Tool:

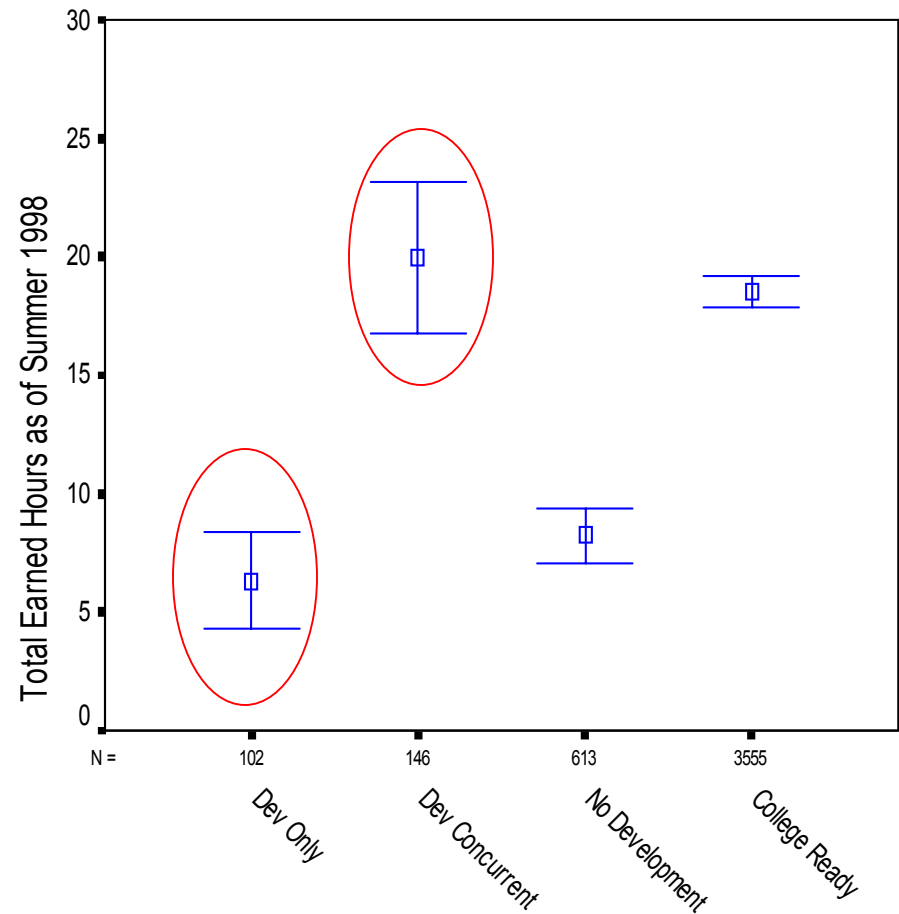
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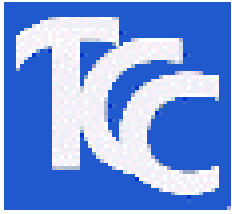


## Results: Attainment

- Students who developed skills *while taking college level courses* earned more hours than students who developed skills prior to taking any college level courses.



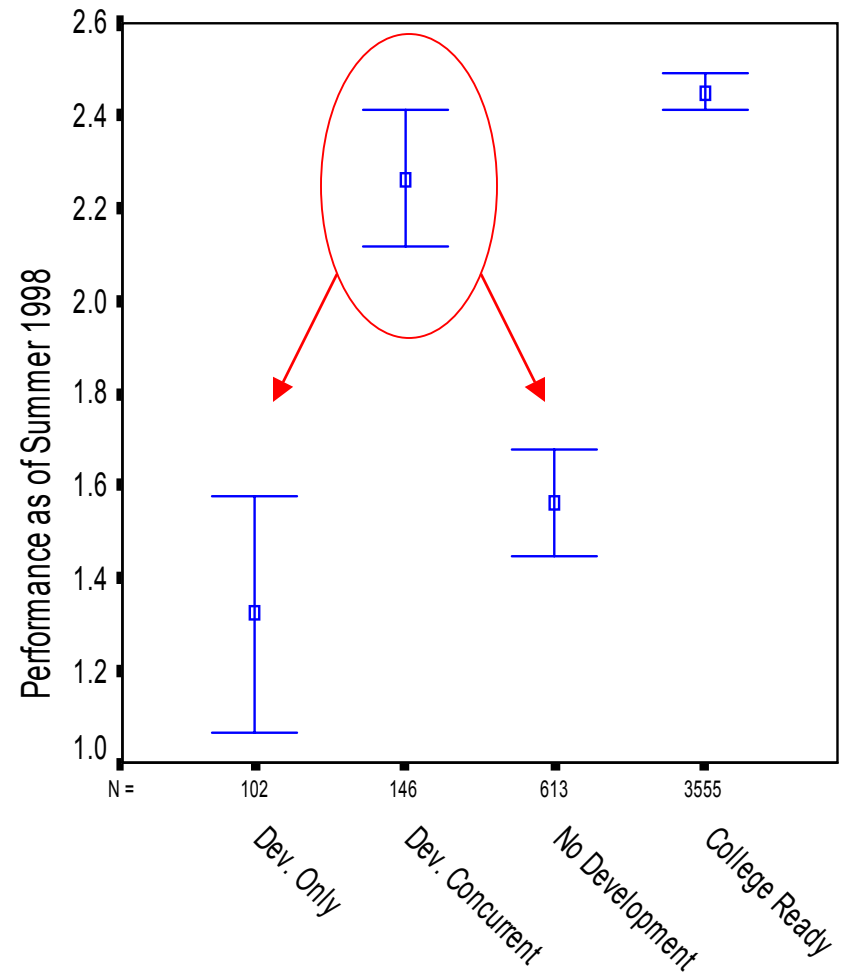


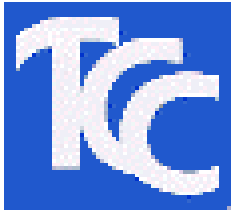


## Results: Performance

**Reading development with college level coursework:**

- **Outperform** students who take only developmental courses.
- **Outperform** students who do not develop their skills.



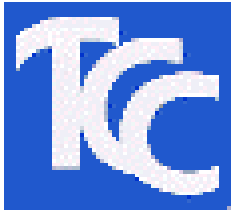


## New question:

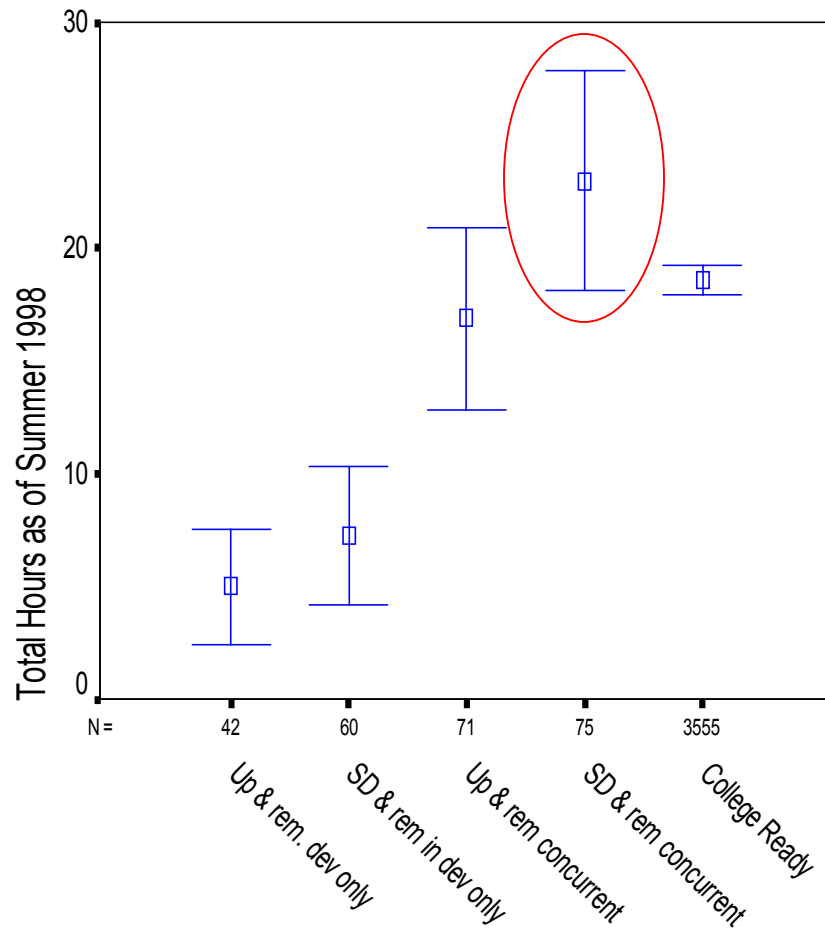
Why do developmental students who take college courses outperform students who only take developmental courses?

### ***Hypothesis:***

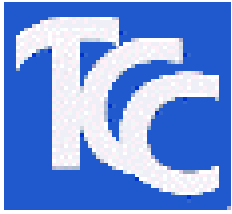
The disparity in performance derives from differences in student skill level.



# Attainment and Deficiency Level

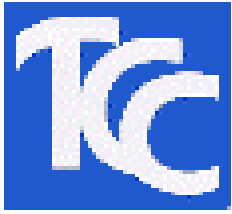


- Seriously deficient students attained *more hours* than underprepared students when they took **college level courses with developmental courses.**
- Seriously deficient students who developed skills concurrently also attained *more hours* than **college ready students.**



## Performance and Deficiency Level

- *Contrary to our expectations*, Level of deficiency **did not affect performance** among students who developed their skills.
- *As expected*, underprepared students outperformed students with serious deficiencies among students **did not develop** their reading skills.

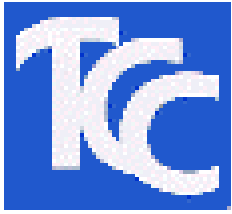


## Conclusion #2:

- Differences in student success are NOT attributable SOLELY to taking developmental courses.
- Enrollment in college level courses contributes to student success, IF development is taking place.

## Recommendation #2:

- Permit concurrent enrollment in college level courses, even for seriously deficient students.

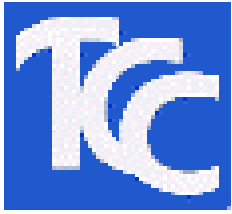


## Conclusion #3:

- In addition to taking developmental courses, student success is affected by other factors we have not yet identified.

## Recommendation #3:

- Examine student experience within the developmental reading program to identify other key factors related to student success.
- Pre- and post-test for reading skill in all developmental reading courses.

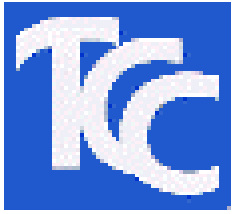


## Unanswered question:

- Development improves student success....

BUT:

- Why do college-ready students still outperform students who take one developmental course?

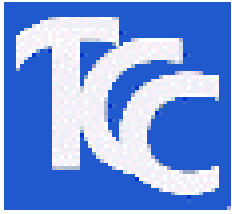


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## Follow-up study:

***How much improvement*** in reading skill can students expect from participating in developmental reading courses?





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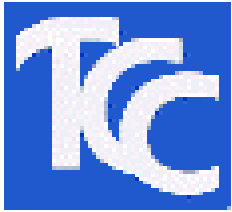
## Pre- Post-Testing on Placement Tests

Assumption: If developmental courses are designed to remove reading deficiencies, post-test scores on placement test should be higher than pre-test scores (hopefully “college-level”).



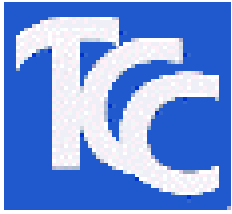
## Reading I Results: 2002-2003

	N	Avg. Pre-test Score	Avg. Post-test Score	Sig.
Nelson-Denny Comprehension	291	33.11 (GE = 9.3)	37.07 (GE = 9.7)	YES
Nelson-Denny Total	292	64.94 (GE = 9.1)	71.30 (GE = 9.6)	YES
CPT Reading Comprehension	340	50.69	56.02	YES



## Reading II Results: 2002-2003

	N	Avg. Pre-test Score	Avg. Post-test Score	Sig.
Nelson-Denny Comprehension	352	38.65 (GE = 10.1)	44.03 (GE = 11.5)	YES
Nelson-Denny Total	351	77.19 (GE = 10.1)	85.19 (GE = 11.3)	YES
CPT Reading Comprehension	479	66.51	65.54	NO



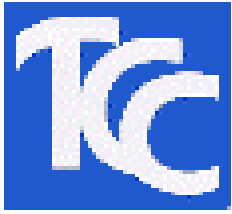
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## What are these results telling us?

- These results suggest that while the raw scores improve on the post-test, the deficiencies that were identified on the pre-test might still be present.

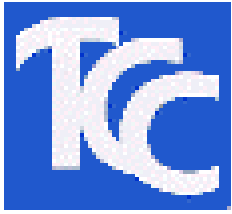
However,

We know from the previous study that successful completion of developmental courses correlates with success in college-level courses.



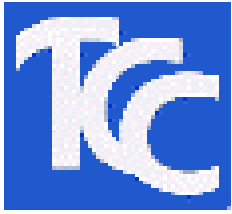
## Conclusions

- Something from the developmental course experience contributes to college success, but the tests do not measure whatever that is.
- Although the placement tests do not appear to adequately measure improvement, they are effective for identifying students who need to develop skills and ensuring that they get the help they need.



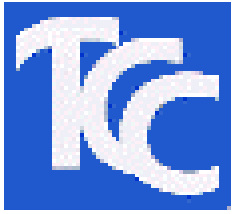
## Still to be explored:

- Why do college ready students outperform students who meet development requirements?
- What *college level courses* do students take concurrent with developmental courses?
- Why do *seriously deficient* students attain more credit hours than underprepared students?
- How can we appropriately place students in our developmental reading program?



## Action taken:

- Entry level assessment committee shared information with developmental reading discipline review
- Faculty innovation grant
- Federal grant proposals

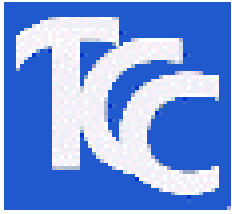


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## Decisions Based on Evidence

- Enrollment Practices based on Student Performance
- Ongoing collaboration between the Office of Institutional Research and the Entry-Level Assessment Committee to study placement in mathematics and writing





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## Contact Information:

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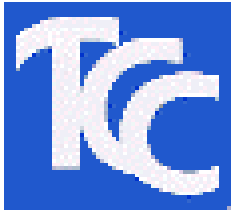
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