Psychology 1101: What Do You Find When You Redesign?

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2016: “Knighted” for the G2C Mission

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(Instructor 2)
G2C Mission:
Reduce the DWF Rates in PSYC 1101
(with the help of our friends!)

Let’s DO IT!
Guiding Principles of Successful Course Redesign (National Center for Academic Transformation)

- Encourage active learning
- Provide students with individualized assistance
- Include on-going assessment and prompt (automated) feedback
Redesign Plan

- De-emphasize traditional lecture delivery format
  - Use in-class activities - at least one per unit - to encourage and enhance student engagement and understanding

- Use active, learner-centered, web-based program - Learning Curve
  - Gives individualized assistance, ongoing assessment, prompt automated feedback

- More affordable textbook
  
  Henrique (2018) studied 7,992 students over 13 years - the most
  “striking finding was the steady increase (since 2008-2009) in the proportion of students who believe it should not be necessary to read the textbook in order to succeed in the class.”
Sample Activities and Supplemental Materials

- First Day of Class Icebreaker
- Learning Curve
- Group Activities
- Class Demonstrations (e.g., Classical Conditioning, Memory)
- Big 5 Personality Inventory
- Class Discussion
- Outline / Power Points
- In-class Videos
- Extra Examples by Instructor
Mean Helpfulness Ratings of Activities

- Examples: 4.6
- Power Point: 4.6
- Videos: 4.6
- Discussion: 4.5
- Lrn Curv: 4.3
- Demos: 4.1
- Written Reports: 3.8
- Group: 3.8
Combined DWF Rates Before Redesign

DWF by Instructor

- Combined (n=135): 27.4%
- Walters (n=70): 27.1%
- Briones (n=65): 27.7%
DWF Rates Before and After Redesign

![Combined DWF Rates Graph]

- Before (n=135): 27.4%
- After (n=132): 24.2%

Legend:
- Before (n=135)
- After (n=132)
Number of Students Earning DWF’s
$X^2(3)=.526$, $p=.47$, $N=267$

<table>
<thead>
<tr>
<th>Contingency Tables</th>
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<tbody>
<tr>
<td>Redesign</td>
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<tr>
<td>DWF</td>
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<tr>
<td>--------</td>
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<tr>
<td>DWF</td>
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<tr>
<td>Pass</td>
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<tr>
<td>Total</td>
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It Is What It Is...  
(Our First Semester Results - Spring 2017)

DWF: 12.1% (11:00 am)

Good teaching is working on your teaching... 😊

DWF: 34.4% (8:00 am)
Do Early Birds Catch The Worm?

DWF rates for 8:00 AM classes

Before (n= 103)  After (n= 29)
DWF Rates For 8a.m. compared to Non 8a.m. classes

$\chi^2(3) = 8.418$, $p < .05^*$, $N = 267$

<table>
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<tr>
<th>ClassTime</th>
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<td>34</td>
<td>63</td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>197</td>
<td>267</td>
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*DWF rate for Non 8a.m. = 21.2%  DWF rate for 8a.m. sections = 35.1%*

*statistically significant*
Grade Distributions Before and After Redesign (Both Instructors)
Final Grades Results (Both Instructors)

Final Average Letter Grade (GPA score)
$t(254) = .54, p = .59, d = .067$

Final Average Numeric Grade
$t(245) = .26, p = .79, d = .034$
What We Have Learned

- Although mean DWF rates appeared to be moving in the right direction, no statistical significance was established and the effect size after 2 semesters of redesign was negligible.
- It is not possible to disentangle the effect of each individual component of the redesign at this time nor other confounds such as idiosyncratic instructor effects.
- 8am PSYC 1101 classes have a significantly higher DWF rate than non-8am PSYC classes
  - Non-8am classes have a 14% lower DWF rate than 8am classes compared to 3.2% difference for redesign (advising and scheduling implications).
- Still much work to be done!
Successes 😊

- Although recent Spring 2018 combined DWF rates appear promising (15.6%, n=45), no inferential statistics have been conducted.
- Increased faculty conversations about high impact teaching strategies as evidenced by new department colloquium series.
- New opportunities through MGA’s CETL.
- Expand mindfulness about student success and progression
- Affordable textbooks for students
Future Research

- Do at-risk students (who could benefit the most from the extra activities) take full advantage of the opportunities?
- Do supplemental activities lead to better test grades or do they simply add more grades to attenuate the weight of tests?
- Do supplemental activities actually decrease grades due to noncompletion?
- Do Teaching Assistants and tutors help at-risk students?
“Success is not final, failure is not fatal, it is the courage to continue that counts.”

- Winston Churchill
Questions?