PRE-TEST/POST-TEST

ASSESSMENT

PFHW 163 Healthy Lifestyles
**Pre-Test/Post-test**

- **Definition:**
  - This method of assessment uses locally developed tests at the beginning of a course to monitor student progress & learning across pre-defined periods of time.

- **Assessment Method:** Direct

- **Appropriate Level:** Course or Program
ASSESSMENTS FOR PFHW 163

- Pre-test/Post-Test
- Capstone Assessment: Healthy Lifestyle Plan
PRE AND POST TEST HISTORY

- Started in 2001
- Wrote test
- Administered Test
- Worked with William L. Brown - Senior Researcher to determine if questions were valid. Some questions were too easy and some were too hard.
**WHAT IS HEALTHY LIFESTYLES?**

- A 2 credit, 3 billable hour course that includes exercise physiology, nutrition, stress management, back care, disease prevention, etc.

- Pre – req for the Nursing Program, required for the Massage Therapy, Kinesiology and Fire Science

- Many programs that require Healthy Lifestyles want their students not only to enjoy good health, but to be role models for others
**Why Pre/post test?**

- Large multi-section course
- Allows to test for consistent content between sections
- Coverage and mastery of learning objectives
- More quantitative data than capstone assessment
Pre/Post Test: Overview

- Started Summer semester 2001 with 6 face to face sections and now we have 19 sections (face to face and online)

- Capture quantitative data
  - 36 multiple choice exam questions
  - Number of sections & students (FTF, OL)
  - Pre-test score vs. Post-test score (FTF, OL, all)
  - Compare FTF student scores vs. online student scores
PRE/POST TEST: OVERVIEW

Process for Faculty Consistency

- **Pre-test** given 1\textsuperscript{st} or 2\textsuperscript{nd} class session
  - Provides baseline measurement of student knowledge
  - Copy of scripted directions to read for pre-test
  - Scantron includes student name, number and birth date
PRE/POST TEST: OVERVIEW

Process for Faculty consistency:

- **Post-test** is evaluative
  - Department final
  - Some add supplemental questions
  - Faculty grade the tests before they turn them into the office

- Post-test – originally not evaluative, but we ran into the problem of students refusing to take the test!
Pre/Post Test: Overview

- Analysis: Absolute Frequency Distribution
  - Every Pre-test must be matched with corresponding Post-test
  - All tests were discarded if they did not have a matching pre and post test
  - Scantrons are run as one entity (first pre-tests and then post-tests). We do not look at individual courses. This process is **not** an evaluation of faculty!
Every October we prepared our Assessment Report

Physical Fitness and Wellness (PFW) has continued to run the scantron reports and collect the data
**Pre & Post Test: Score Summary**

*Significant difference between Pre/Post results*

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for FTF: 46%</td>
<td>Average for FTF: 72%</td>
</tr>
<tr>
<td>Average for OL: 53%</td>
<td>Average for OL: 74%</td>
</tr>
<tr>
<td>Average of all classes: 50%</td>
<td>Average of all classes: 73%</td>
</tr>
</tbody>
</table>
PRE & POST TEST: SCORE SUMMARY

Significant improvement between Pre & Post tests

- Pre-test scores demonstrate that student knowledge about Healthy Lifestyles is not innate.

- Often what students “know” is based on the popular press!
CONTRAINDICATED EXERCISES AND ALTERNATIVES

- Walrus Exercises with Trainer
PRE & POST TEST: SCORE SUMMARY

- Post-test scores demonstrate that both FTF & OL students have improved knowledge of learning objectives.
- Students learn how to be “INFORMED CONSUMERS”
PRE & POST TEST: STUDENT LEARNING

What did we learn to improve student learning?

- Improve curriculum consistency between large multi-section course
- Healthy Lifestyles instructors make their own class improvements
- Review poorly scored questions
  - Determine if question is poorly written
  - Determine if content wasn’t reviewed thoroughly
QUALITATIVE DATA

- We use our Capstone Assessment: Healthy Lifestyle Plan for qualitative data for curriculum suggestions or changes
PRE & POST TEST: LESSONS LEARNED

- Would like a “test bank of questions”
  - Significant amount of work
  - Answers must match up between pre/post tests

- Updates
  - Always new information in the wellness field (My Pyramid to My Plate)
  - Takes a significant amount of work

- Pre-test & Post-test must look different
  - Mix up questions, while making sure answers match up

- Significant amount of time without enough resource help (faculty release time & office support)
Pre & Post Test: Road Blocks

Online classes:

- Online testing security
- Cost of pre-test for proctored sites can be expensive & frustrating for students if non-evaluative
- Additional cost for post-test for proctored sites

Analysis:

- Data analysis has been difficult between online testing & scantron testing (FTF)
- Lack of consistent statistical assistance
PRE & POST TEST: SUMMARY

Advantages:
- Provides great quantitative data demonstrating comprehension of learning outcomes
- Provides great quantitative data comparing FTF & OL comprehension of learning outcomes
- Provides instructional consistency in large, multi-section courses

Disadvantages
- Significant amount of work without extra support
- Data collection between FTF & OL not streamlined
- Data analysis cumbersome & not easily accessible
PRE & POST TEST: QUESTIONS?

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