

National Health Science Curriculum Conference  
October 20-22, 2010 – Minneapolis, Minnesota

# **ACHIEVING SUCCESS WITH THE NATIONAL HEALTH SCIENCE ASSESSMENT**

# NATIONAL HEALTH SCIENCE ASSESSMENT

- ▶ Formerly called National Health Science Foundation Skills Assessment
- ▶ Pre- and Post-Testing program
- ▶ Available since 2008
- ▶ National Consortium for Health Science Education & the CareerTech Testing Center
- ▶ Aligned to National Healthcare Foundation Skills Standards
- ▶ Delivered online
- ▶ 2009-10: Used by 354 schools in 21 states

# NATIONAL HEALTH SCIENCE ASSESSMENT

- ▶ Satisfies Technical Skills Assessment requirements for Carl Perkins
- ▶ Validates student knowledge of basic healthcare knowledge and skills
- ▶ Provides decision-makers (instructors, administrators, and state program leads) a tool for instructional planning and program improvement

# NATIONAL HEALTH SCIENCE ASSESSMENT

## Pre-Test

- ▶ Available September thru December
- ▶ Measures existing knowledge students entering program
- ▶ Administered to students as early as possible upon program entry
- ▶ \$12/student
- ▶ No retakes

*Note: The pre-test is not a pre- post-test (a.k.a. a practice test for the post test)*

# NATIONAL HEALTH SCIENCE ASSESSMENT

## Post-Test

- ▶ Available November thru June
- ▶ Measures knowledge of students completing instruction
- ▶ Administered to students as soon as possible upon completion of instruction covering standards
- ▶ \$12/student/test
- ▶ One retake possible
- ▶ Certificate awarded to students scoring 70% or higher

# NATIONAL HEALTH SCIENCE ASSESSMENT

[Healthscinetest.com](http://Healthscinetest.com)

## “One-Stop Shop”

- ▶ Information – General info to specific
- ▶ Instructions - User’s manuals, quick references, how-to videos
- ▶ Ordering – ***Online!! New!!***
- ▶ Reporting – Easy access to local, real-time data and reports

# NATIONAL HEALTH SCIENCE ASSESSMENT

Data – It's a Wonderful Thing!! Why?



# NATIONAL HEALTH SCIENCE ASSESSMENT

## Individual Analysis – Coaching Report

- ▶ Score on assessment and in each topic area
- ▶ Indicates student strengths and weaknesses
- ▶ Tool for remediation or additional study



# NATIONAL HEALTH SCIENCE ASSESSMENT

## Group Analysis

- ▶ Class
- ▶ Instructor
- ▶ School
- ▶ State
- ▶ Gender
- ▶ Grade Level
- ▶ Ethnicity
- ▶ Pathway
- ▶ Portfolio Use
- ▶ HOSA Participation
- ▶ Overall



# NATIONAL HEALTH SCIENCE ASSESSMENT

## Group Analysis

- ✘ Shows performance of students as a group
- ✘ Identifies strengths and weaknesses of current instruction
  - + Targeting areas for improvement
  - + Identifying and selecting instructional resources
- ✘ Provides tool for evaluating the effectiveness of changes in instructional strategy
- ✘ Indicates areas for professional development
- ✘ Justifies development of instructional resources

# NATIONAL HEALTH SCIENCE ASSESSMENT

**Item Analysis – shows performance of individual test items**

## *Key Terms*

**Number of Results - Provides an indicator of the stability of the item statistics**

- ✘ At least 100 results to be significant
- ✘ More is better

# NATIONAL HEALTH SCIENCE ASSESSMENT

**Item Analysis – shows performance of individual test items**

## *Key Terms*

**Times Not Answered – Indicates a potential problem with the question (i.e. wording is confusing, graphic does not display properly)**

- ✘ **Affects Number of Results**
- ✘ **Less is better**

# NATIONAL HEALTH SCIENCE ASSESSMENT

**Item Analysis – shows performance of individual test items**

## *Key Terms*

**P Value – Percentage of test takers that answered correctly**

- × Indicates item difficulty
- × Between 0.30 and 0.90
- ×  $<.30$  (too hard, item keyed incorrectly, etc.)
- ×  $>.90$  (too easy)

# NATIONAL HEALTH SCIENCE ASSESSMENT

**Item Analysis – shows performance of individual test items**

## *Key Terms*

Discrimination – measures the degree to which questions differentiate or distinguish participants who know the material from those who do not.

- ✘ Proportion of participants in the top 27% who answered item corrected minus the proportion of participants in the bottom 27%
- ✘ -1.0 to 1.0
- ✘ The closer to 1.0, the better (above .30 is desirable)
- ✘ Negative value means bottom 27% answered correctly more often than top 27%

# NATIONAL HEALTH SCIENCE ASSESSMENT

**Item Analysis – shows performance of individual test items**

## *Key Terms*

Correlation (“Point-biserial item-total correlation coefficient”)

- ✘ Correlation between test scores and item scores
- ✘ Indicates the degree to which high item scores translate into high test scores
- ✘ 1.0 maximum value



# CAREERTECH TESTING CENTER

## Contact Information

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