

Direct Measures of Student Learning

What is being measured?

Direct Measure



Indirect Measure

- ✓ Sick to your stomach
- ✓ Fatigued
- ✓ Putting on Weight

Pregnant?

Direct Measures

- Captures Student Learning
- Evaluation of demonstration of learning **by the student**
- Any measure that answer the questions:
 - What have the students actually learned?
 - How much have the students actually learned?
 - How well have the students actually learned?

Indirect Measures

- Implies Learning has Occurred
- This can include
 - Beliefs
 - Opinion
 - Behaviors associated with learning
- This can be measured from
 - Students
 - Professors
 - Others, like Internship supervisor

Three Examples

2 Assessments

One is Direct

One is Indirect

Let's Complete the Assessment

Indirect

Scale from 1 - 7

- Compared to other workshops, how much did you learn about direct measures?
- If given examples of direct and indirect measures, how likely would you be to correctly identify them?
- How likely is it that you can create your own direct measure?

Direct

Indirect/Direct/Not Enough Info

- Multiple Choice Quiz
- Students Comfort Level with the material
- Rubrics

Which one is Direct? Which one Indirect?

The Physics Department Wants YOU

(junior and senior B.A., B.S., including Engineering Transfer)



- For ETS testing Monday 4-29-2013
- 1-3PM Gessner 220
- Please help us collect this important data to help us continually improve our programs

Direct Assessment Panel

Mark Stewart, Physics

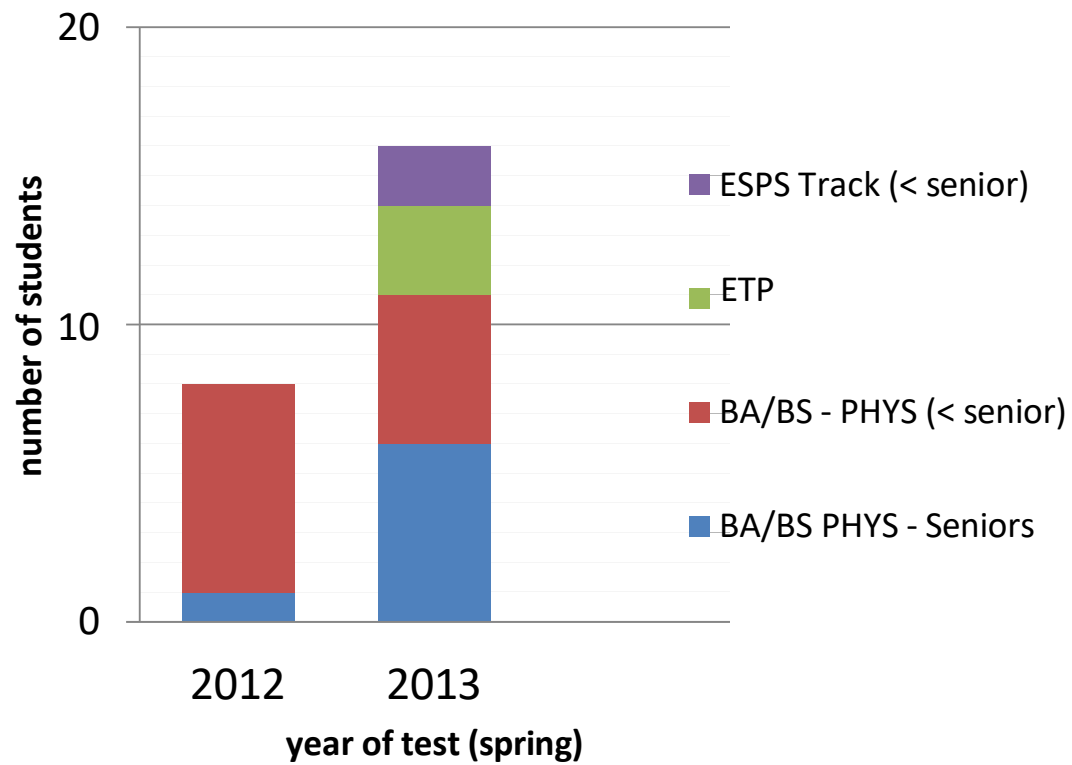
What?

Educational Testing Service Major Field Test in Physics

ETS MFT Physics

National test designed to assess senior physics majors

Who?



Why?

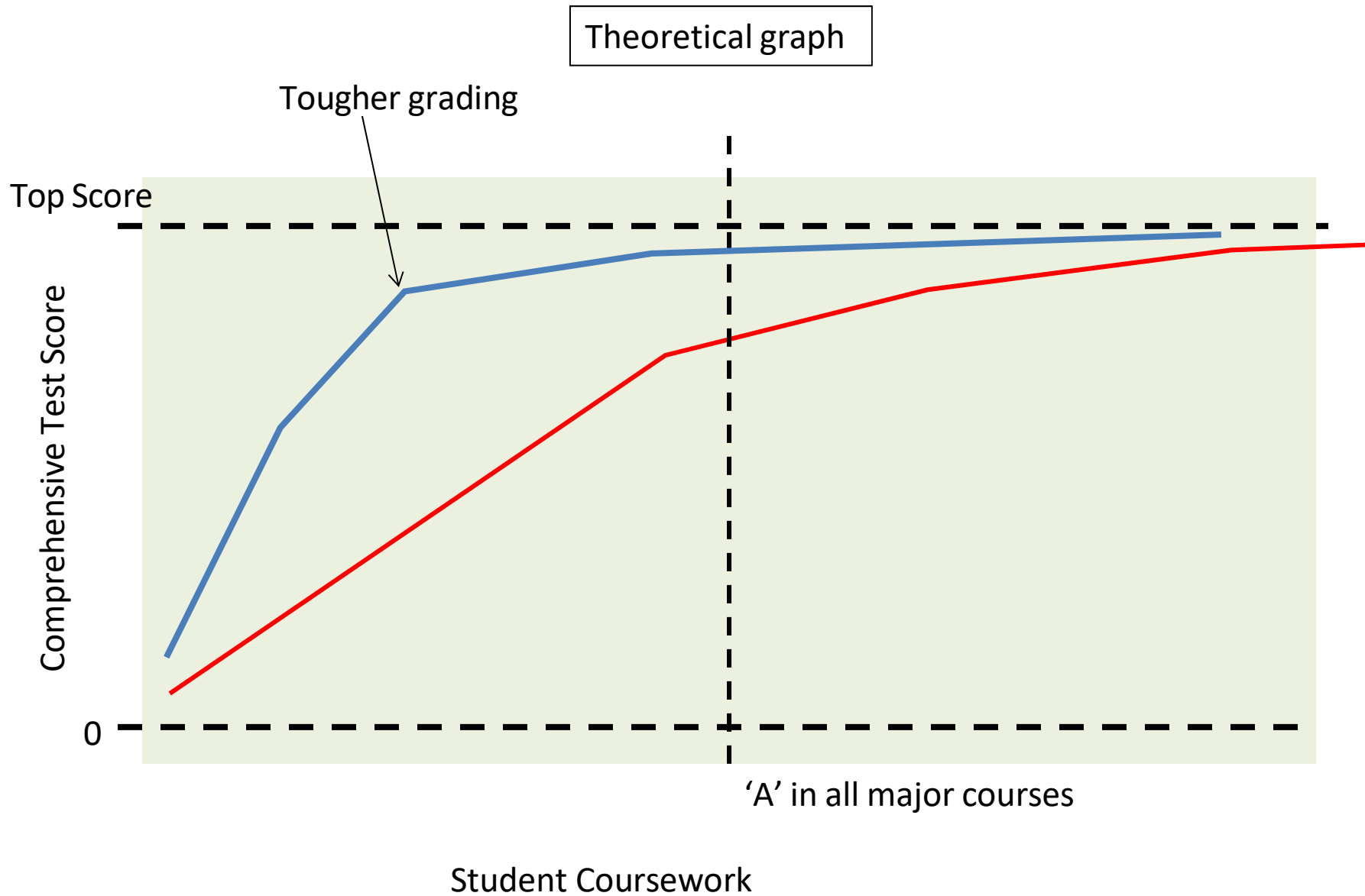
1. Evaluate program
2. One way to evaluate our grades
3. Evaluate other assessments

1. Program Evaluation

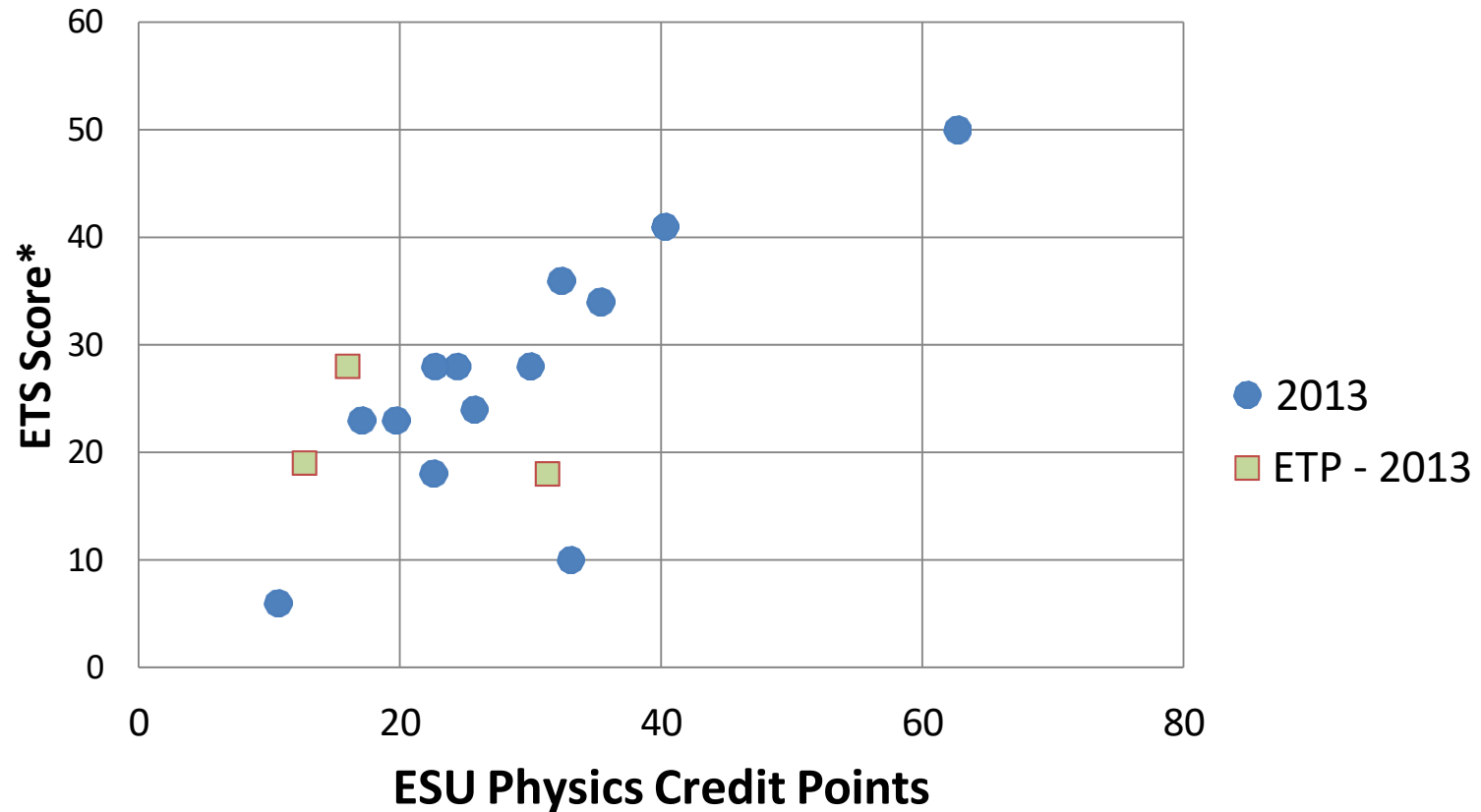
National Comparison Data

	2012 (percentile)	2013 (percentile)
B.S. PHYS Seniors compared to seniors	86	8 64 71 76 83 86
B.A. Seniors		42

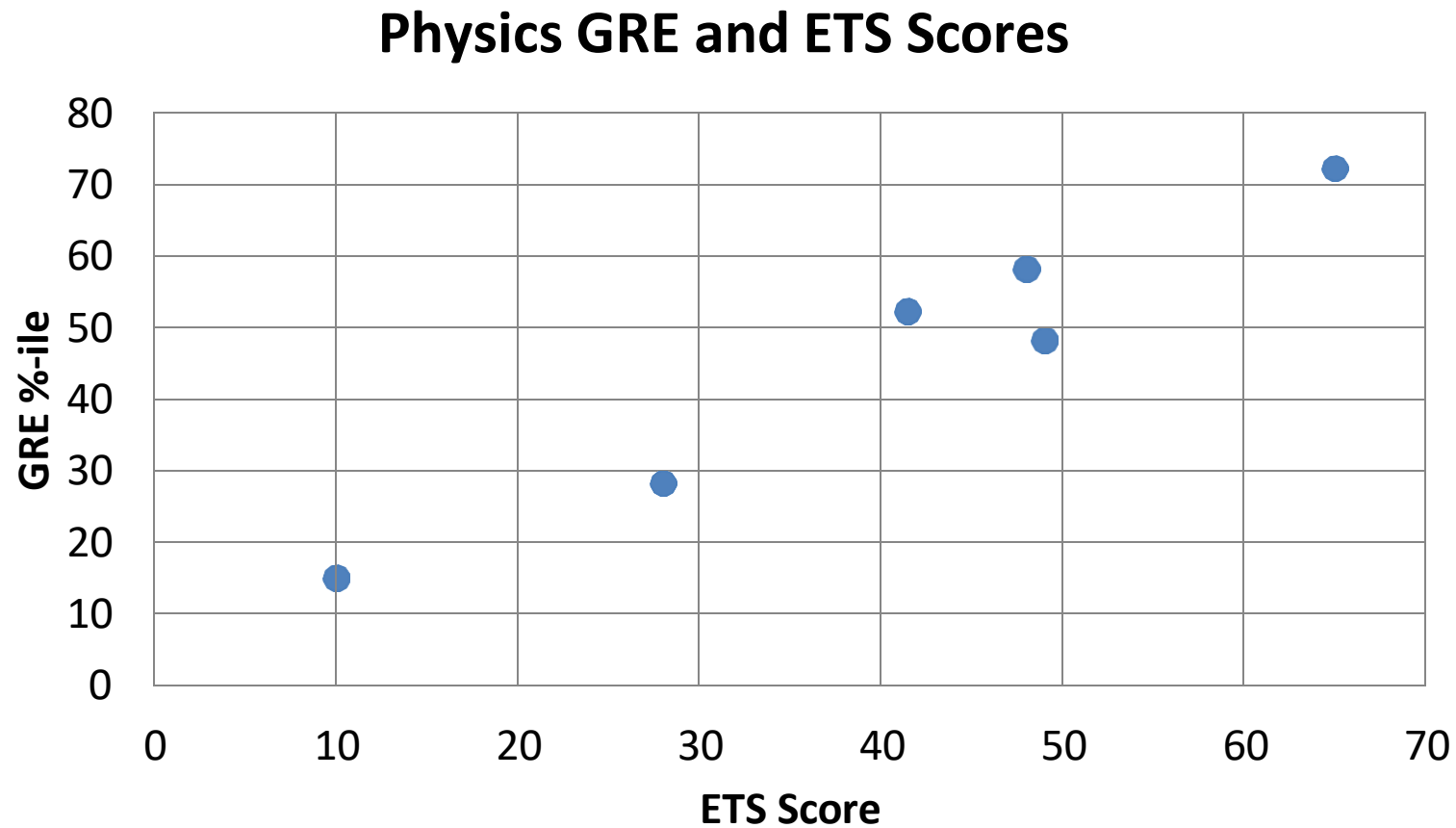
2. Correlation with grades



2. Correlation with grades

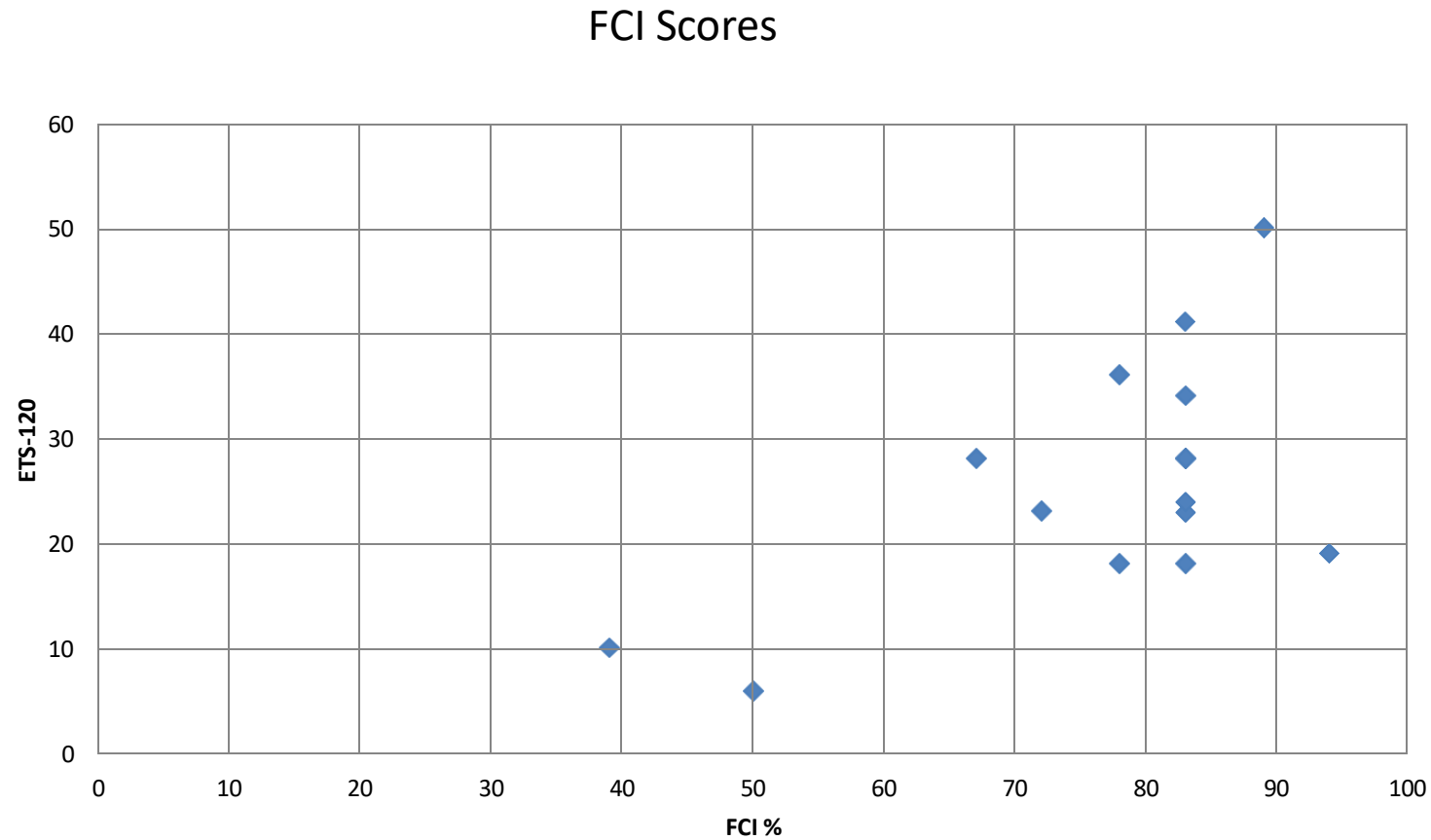


3. Evaluating Other Assessments

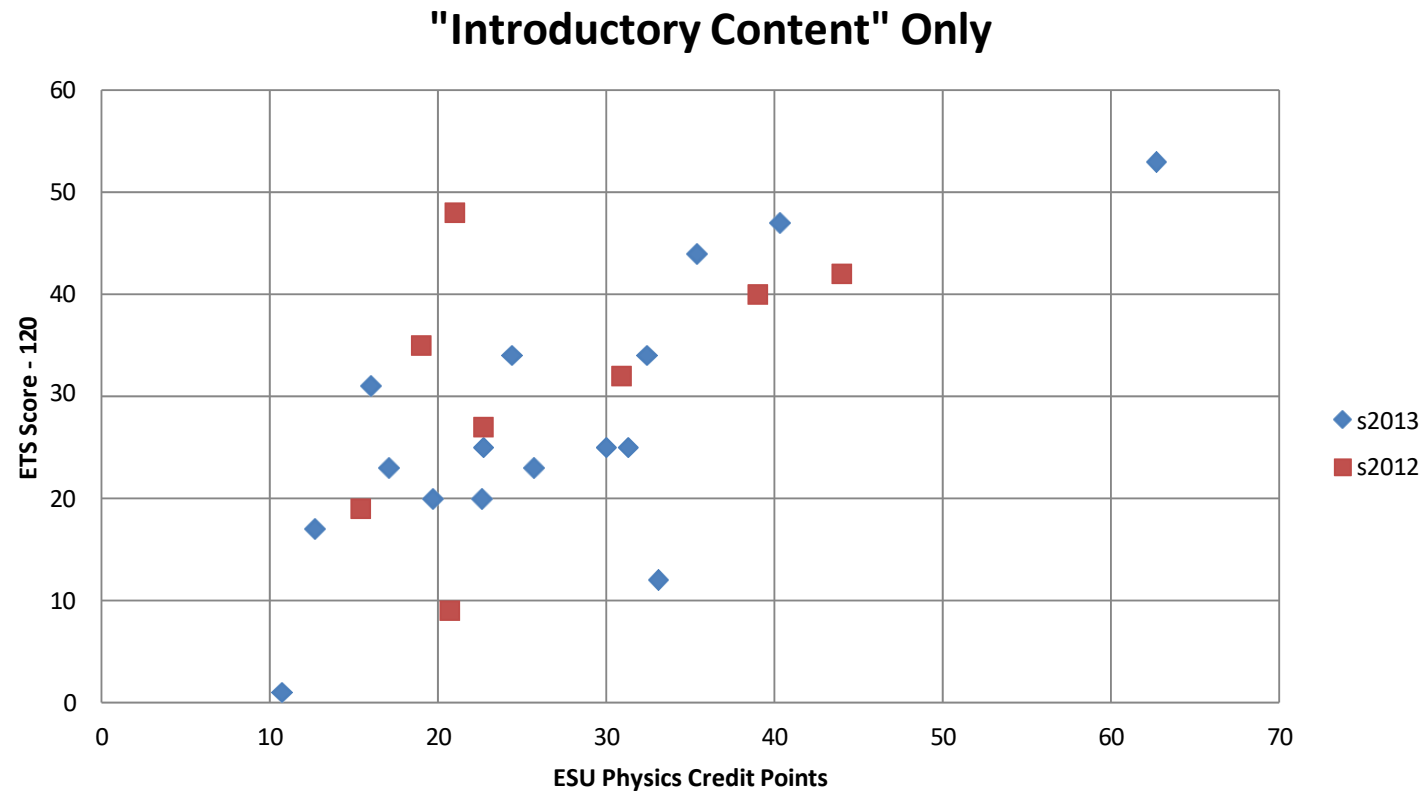


Thank you to the Office of Institutional Effectiveness
For Funding
And Supporting this testing

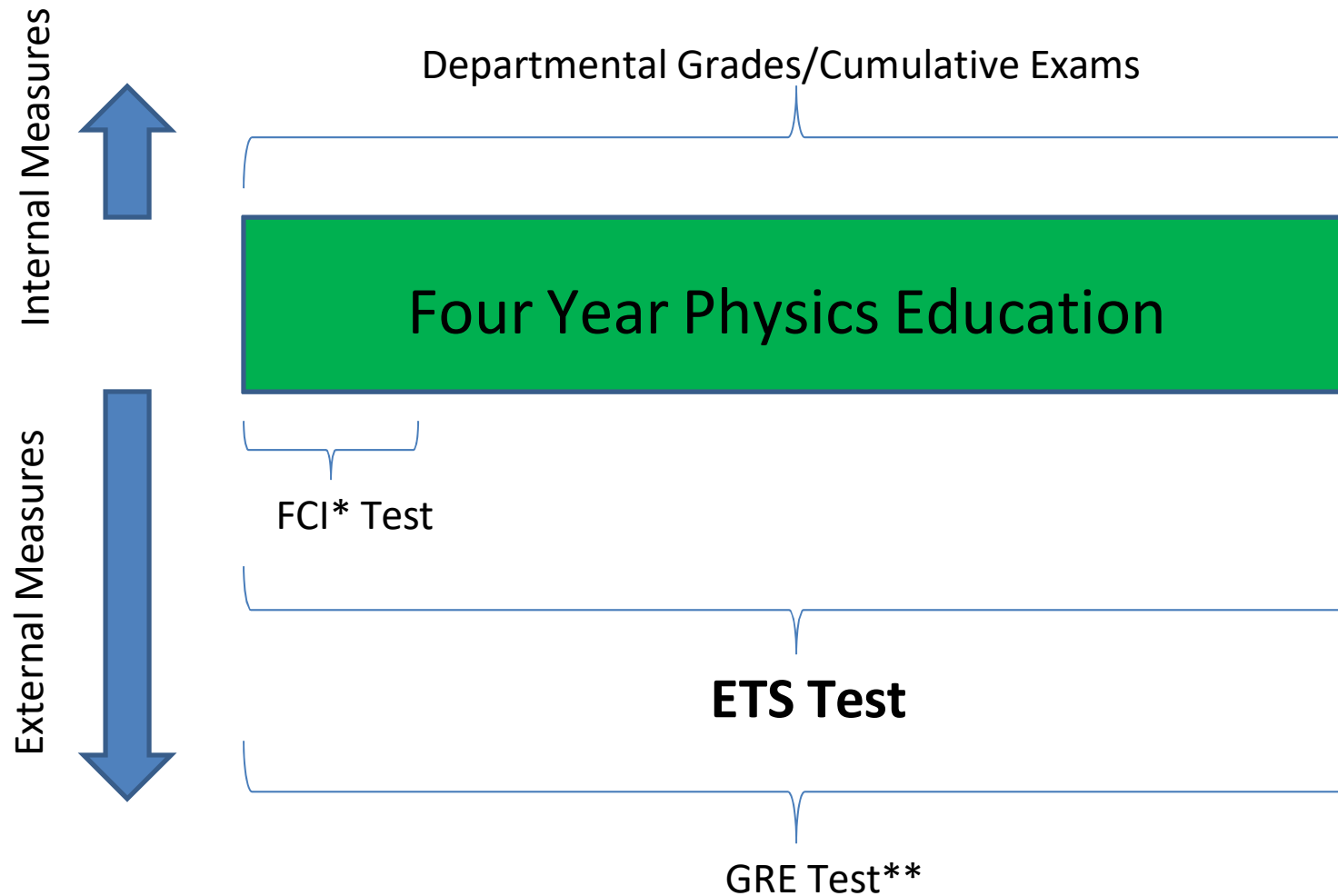
3. Justifying Other Assessments



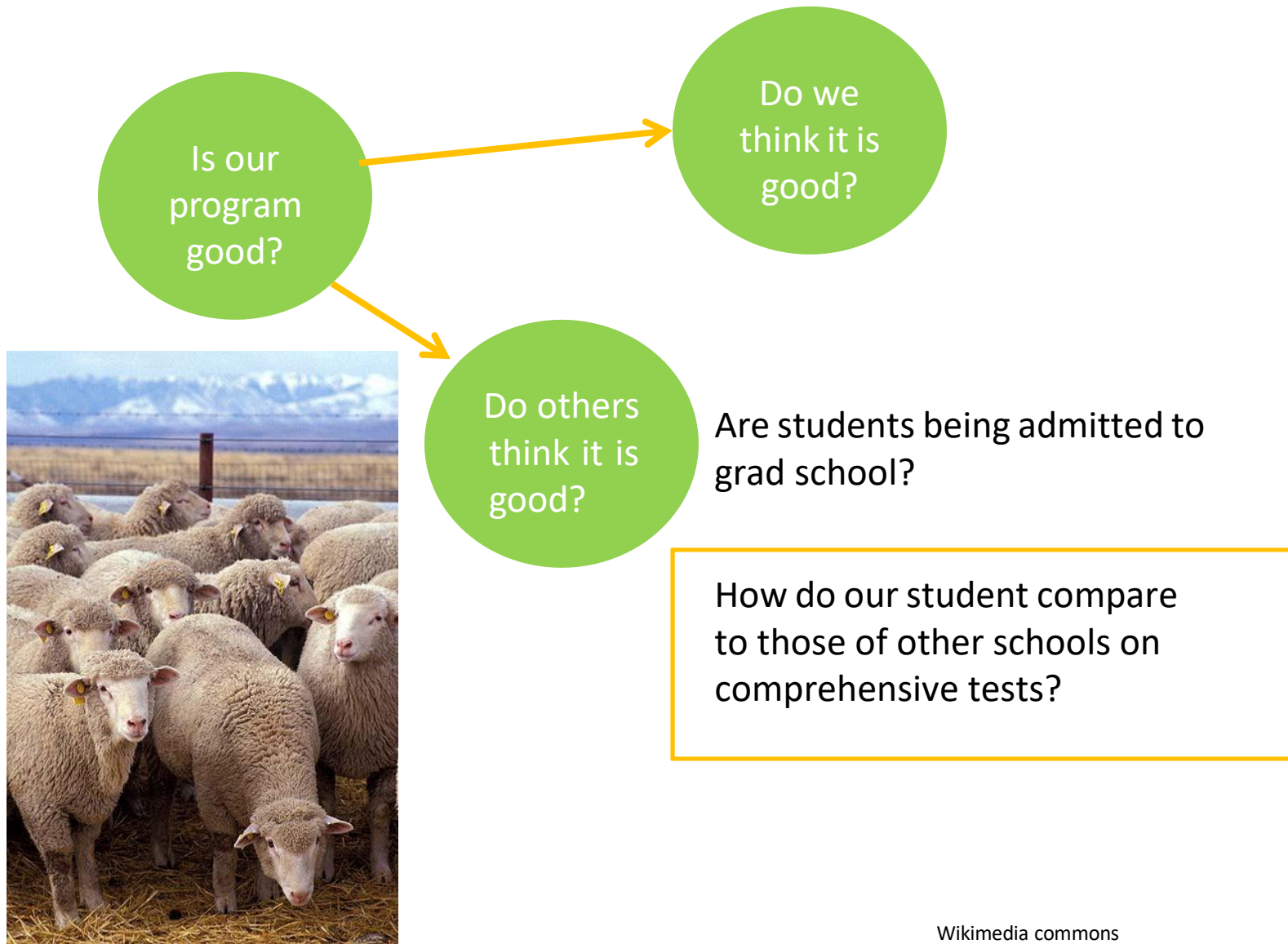
2. Justification of grades



3. Justifying other assessments



1. Program Evaluation



Direct Assessment in Student Affairs


RA Training: Behind Closed Doors

Michael C. Sachs, JD, CCEP

Assistant VP Student Affairs

- Professional staff and seasoned RAs act out common scenarios likely to be encountered as part of the job
- A group of new RAs (3-5) enter a room, one or two are assigned to be the confronters, the others observe.
- RAs do not know what they will encounter.
- A facilitator provides verbal feedback to the RA including positive points, areas for improvements, suggestions, and observations at the end of each session.

Behind Closed Doors: the Basics

- 
- Participants (both actors and other new RAs) may provide feedback and suggestions on how to handle the situation, observations, etc. in addition to the facilitator.
 - A rubric matrix is used to evaluate the RA against a set of criteria and can be used to evaluate the group as a whole.
 - Additional training may be given to a particular RA or the group as a whole based on their performance in the scenarios.

The Basics, continued



RA's name:

Evaluator's name:

Community / Scenario:

Date:

- Beginning: Does not have grasp of proper approach. Aggressive, inappropriate, overwhelmed, etc.
- Developing: Staff approach is uncomfortable or awkward.
- Accomplished: Staff approached situation in a calm and collected manner, good knowledge.
- Exemplary: Handled superiorly, displaying full knowledge of proper approach.
- Not applicable: Unable to determine based on scenario.

Rating Scale

- Behind Closed Doors
- Scenario 1: Party
- Location:
CW3
- Information given to the RA:
- You are on duty. As you walk by this apartment/room, you hear bottles clinking, loud voices/music, and other obvious signs of a party.
- Scenario Actors:
- Roles: Six people drinking, many talking loudly. When you open the door of the apartment the RAs should notice how loud the music and talking is. You open the door just slightly and see the RA. Tell him/her, “just a second” and shut the door. You say just loud enough to be heard by the RA, “hide the shit it’s the RA”. A few moments later you open the door.

Example

Slide 5

CW3

Removed superfluous bullet points

Christopher Willis, 3/26/2014

- Beginning: Staff did not assess situation correctly, was inappropriate with handling.
- Developing: Staff had trouble assessing situation but continued in a professional manner.
- Accomplished: Staff assessed situation appropriately and proceeded in an acceptable manner.
- Exemplary: Staff assessed situation and proceeded accordingly, displaying greater knowledge than required.
- Not applicable: Unable to determine based on scenario.

Assessment of the Situation

- Beginning: Staff ignored residents' concerns.
- Developing: Staff acknowledged residents' concerns but was unable to come up with proper solutions.
- Accomplished: Staff addressed concerns at the surface level and gave sufficient answers.
- Exemplary: Staff addressed all concerns with superior knowledge and went beyond required response.
- Not applicable: Unable to determine based on scenario.


Assessment: Resident Concerns

- Beginning: Staff did not notice that any violations were occurring.
- Developing: Staff noticed a violation was occurring, but was unable to clearly identify the violation.
- Accomplished: Staff noted correct policy violations and was able to give accurate explanation of them.
- Exemplary: Staff noted correct violations and thoroughly explained the policy and rationale for the policy.
- Not applicable: Unable to determine based on scenario.

Assessment: Policy

- Beginning: Staff was unprofessional throughout the situation and debriefing.
- Developing: Staff was able to remain professional for majority of situation but faltered when it became difficult.
- Accomplished: Staff remained professional throughout entirety of scenario but not during debriefing of scenario.
- Exemplary: Staff was professional for entirety of scenario as well as debriefing showing humility and teachability.
- Not applicable: Unable to determine based on scenario.

Assessment: Professionalism

- 
1. What were the central issues? (determining the situation; is anyone in immediate danger?; is there alcohol present?; if drunk, are the residents coherent enough to talk to you?; etc.)
 2. What would you do differently if faced with this situation again? What would you do if there were more people in the room? What should you do when residents are uncooperative?
 3. What resources should you take advantage of when facing this situation?

Processing Questions

- Call University Police first, then your RD.
- Always call University Police when alcohol or drugs are suspected.
- Writing the Incident Report—make sure to be detailed in the explanation of what happened.
- Did the staff member enter the apartment when they were invited in? If so, be careful of personal items. Don't touch/take the alcohol, leave it for the University Police. Rather, ask the resident to put all alcohol in the center of the room. Or, call your RD or RD on duty to ask for help.
- Handling the noise and alcohol according to policy.
- Police will manage safety of people who may be intoxicated / ill.
- Following up on the situation when people are sober (the next day).

Individual or Group Debriefing

- Noise
- Party with alcohol
- Drugs
- Depression or attempted suicide
- Assault / Fight
- Discrimination / Bias
- Harassment
- Roommate conflict
- Medical emergency
- General Emergency

Some Typical BCD Scenarios

): _____ Home RC Name : _____ Evaluator Name: _____

NOISE VIOLATION - Behind Closed Doors Evaluation

ns: For each scenario we have identified key skills that should be demonstrated during BCD's. As an evaluator you are responsible for observing BCD's ng RA performance based on the use of these skills. For each skill mark "Demonstrated", "Partially Demonstrated", or "Not Demonstrated":


monstrated (D) - RA(s) displayed *almost all* necessary components of skills. Anything noteworthy should be indicated in the notes section

tially demonstrated (PD) - RA(s) successfully exhibited *some* necessary components of skills. Missing components should be indicated in the notes tion.

t demonstrated (ND) - RA(s) exhibited *very few* necessary components of skills. Indicate various ways for improvement in the notes section.

the debrief for each scenario, *add specific comments to the notes section* based on the conversation with the facilitator(s). A folder will be provided in enario room to collect the evaluations. ***Leave all completed evaluations in the room before moving on to the next scenario.***

Skill	D	PD	ND	Notes
yourself as an RA and knock on the door, assessing once you're able to see into the room (do not get into room, note if alcohol is present, find out who is there, etc.)				
most cooperation in maintaining reasonable noise levels and minimizing the impact on the community.				
for appropriate follow-up (if noise persists, further action must be taken i.e. incident report and noise must be addressed)				
appropriate HDRL protocol (write incident report after scenario)				

- 
- Knowledge Test
 - Reflection Papers in Conduct
 - Pre and post projects in diversity programming
 - Fire suppression exercises
 - Matrix for resume writing
 - Matrix for budget development after budget workshop

Other Examples

STUDENT ASSESSMENT USING ONLINE HOMEWORK MANAGER

by

PROF. PATS NEELAKANTAN
ECONOMICS

Initial Reluctance

I don't need it! – free trial helped.

Don't have time to learn? – Really?

It is too expensive

– Students can't afford it!

What is being assessed? Why?

Two things are assessed;

(i) **Have students grasped the basic material in the course?**

LearnSmart: An intelligent learning system that diagnoses students' **understanding** of subject then creates **an individualized learning path**.

LearnSmart is **tied to learning objectives** of the course and **competencies set forth by accrediting bodies**.

Instructor sets time limit - **It is an 'electronic flash card that is dynamic.'**

(i) Can students demonstrate **critical thinking** skills?

Assignments/Problems: To test if they can **analyze, apply and evaluate** important concepts.

CONNECT HOMEPAGE

McGraw-Hill Connect | ECON 122: PERSONAL FINANCE - Spring 2014 <http://connect.mcgraw-hill.com/connect/htmlInstructorSectionHomePortal...>

section overview

messages

No assignments to grade

Assignments

Add assignment

filter assignments

Share

Copy

Manage dates

Show / Hide

Delete

instructor view

student view

Section info

Instructor
Pats
Neelakantan

Add your photo, email
address, office hours

[View my course colleagues](#)

Textbook

Personal
Finance

Kapoor, 10th ed.

Section web address:


<http://connect.mcgraw-hill.com/122>

[Upload syllabus](#)

my course resources

section performance

Section average for 33
assignments: 93.26%*



assignments

*As of 03/27/2014 6:33 PM EDT

Look up a student in this section:

your recorded lectures

Record, view and manage all
of your lectures for this
section at any time.

[find out more](#)

2 of 4

3/27/2014 6:33 PM

Are they doing Chapter 4 homework?

McGraw-Hill Connect | Assignment Results <http://connect.mcgraw-hill.com/connect/assignmentResults.do?dropLow...>

Select the checkboxes on columns you want to export or print. [Learn how to export these results into Blackboard or Blackboard Vista](#)
[export to excel](#)

Student	Chapter 4: Elasticity	15
Total Value (Points)	6.00	

Use the options below to view assignment scores. [show report options & settings](#)

assignment results: ECON 112 Principles of Microeconomics - Spring 2014 - MWF 9 - 9:50 a.m.
[Chapter 4: Elasticity](#)
report created: 03/27/2014 6:18 PM EDT
report date range: -
attempt: Best
section average: 6.00 (100.00%)
assignment type: LearnSmart
score style: Percent
total submitted: 22/46

Select the checkboxes on columns you want to export or print. [Learn how to export these results into Blackboard or Blackboard Vista](#)
[export to excel](#)

Student	Chapter 4: Elasticity
Total Value (Points)	6.00
Adam, Jordan	100.00%
Albano, Roberto	
Banks, Shabameon	
Beal, Kelsey	
Bhat, christian	
Bird, Matthew	
Braunagel, Megan	
Burns, Daniel	100.00%
Carper, Jesse	100.00%
Chobanova, Borislava	100.00%
Conley, Ayanna	

1 of 3 3/27/2014 6:19 PM

What if they have doubts?

McGraw-Hill Connect | Student Questions <http://connect.mcgraw-hill.com/connect/getStudentInquiries.do?assignment...>

Pats Neelakantan
ECON 122: PERSONAL FINANCE ~

[FINANCE](#)


[back to section home](#) [help](#)


Chapter 9 - Financial Planning Problems
your students' questions


click a student's name to read and respond.

1 student question sort by: most recent

[Jimmy Saunders](#) | Problem 9-5... [\(see snapshot\)](#) [report a content issue](#) [latest comment: Sat, Mar 22, 1:13 PM by Jimmy Saunders](#)

 Mar 10, 2014 at 9:18 PM
Hello,
I'm a little confused this question. Based on what I'm reading on how to solve this question, I need to know what the person's monthly gross income is and any other debt payments they have, unless I'm trying to use a different method for this question. Thanks,
Jimmy

 Pats Neelakantan Mar 20, 2014 at 12:03 PM
Jimmy,
Just use the Exhibit 9-9 given in the problem. The exhibit gives the monthly payment FOR A \$1000 LOAN based on interest rate (given in the problem) and the length of loan (also given in the problem). All you have to do is to multiply the exhibit number by the number of THOUSANDS of dollars of the loan amount. For example, if the loan amount is for \$50,000, then multiply the exhibit number with 50 to get the monthly payment.
- Prof. Pats

 Jimmy Saunders Mar 22, 2014 at 1:13 PM
Thanks, I was using a different method but this worked great.
Jimmy

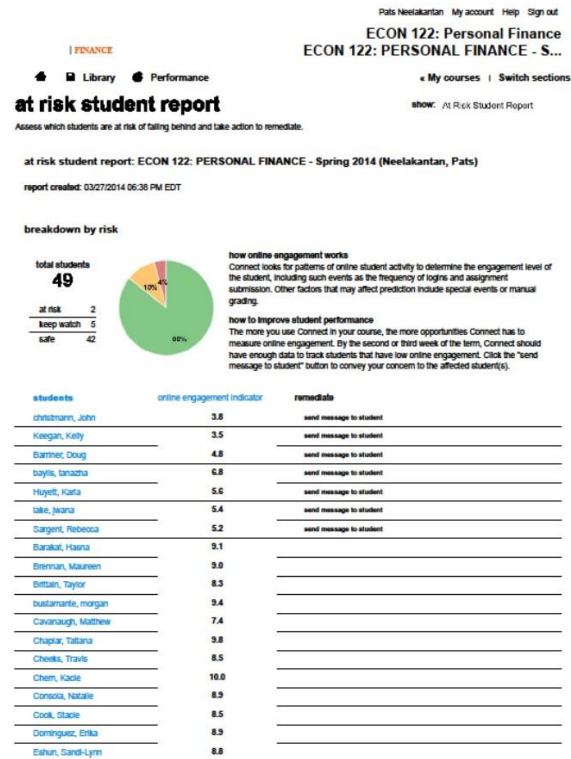
[delete this thread](#) [reply...](#)

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Who are at risk of failing?

McGraw-Hill Connect | At Risk Student Report

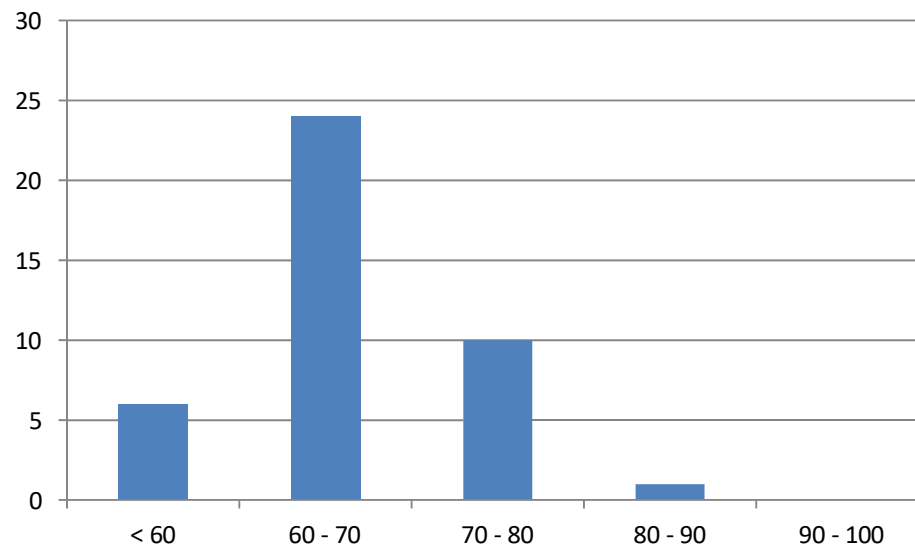
http://connect.mcgraw-hill.com/connect/atRiskStudentReport.do?section...



Snapshot of Student Performance

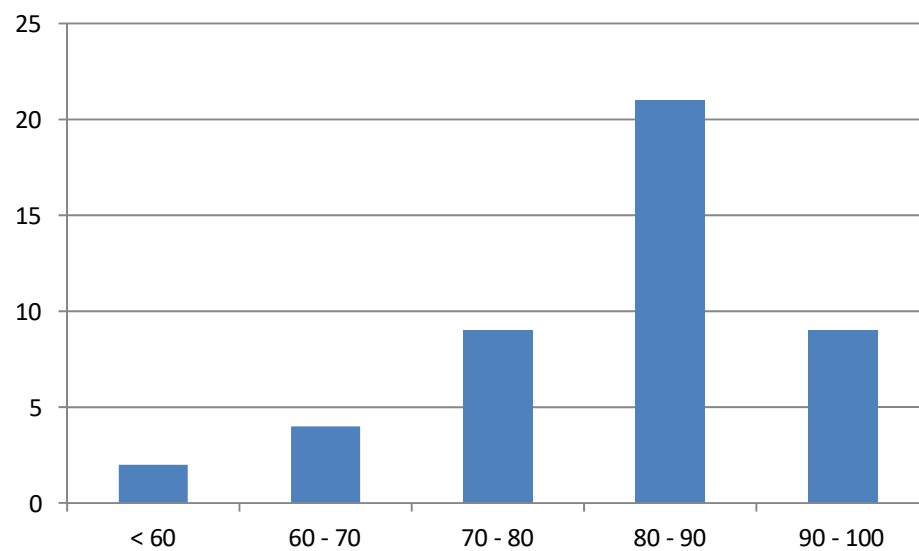
[illegible]

Are students performing better?



Fall 2007 (before CONNECT)

Fall 2013



What students say? (Fall 2013)

The Learn Smart and the Financial Planning Problems helped in understanding the chapter much better. it was an awesome and easy software to use .

The LearnSmart assignments were a wonderful way to not only check my understanding after a chapter, but to prepare for exams.

Physics: Using the ETS Major Field Test

March 31, 2014

Workshop on Direct Assessments
Panel Discussion

Mark Stewart
Robert Cohen

Is it direct?

Yes: It directly measures the learning that it is designed to assess.

No: We are using the test to assess two outcomes that we assume are directly related to it.

- *Utilize scientific reasoning, mathematical techniques and conceptual understanding to solve problems in science.*
- *Obtain suitable employment in their field of study (if desired), or enroll in graduate school in physics or a related field of study (if desired).*

What? When? Who? How? Why?

Educational Testing Service
Major Field Test
in Physics

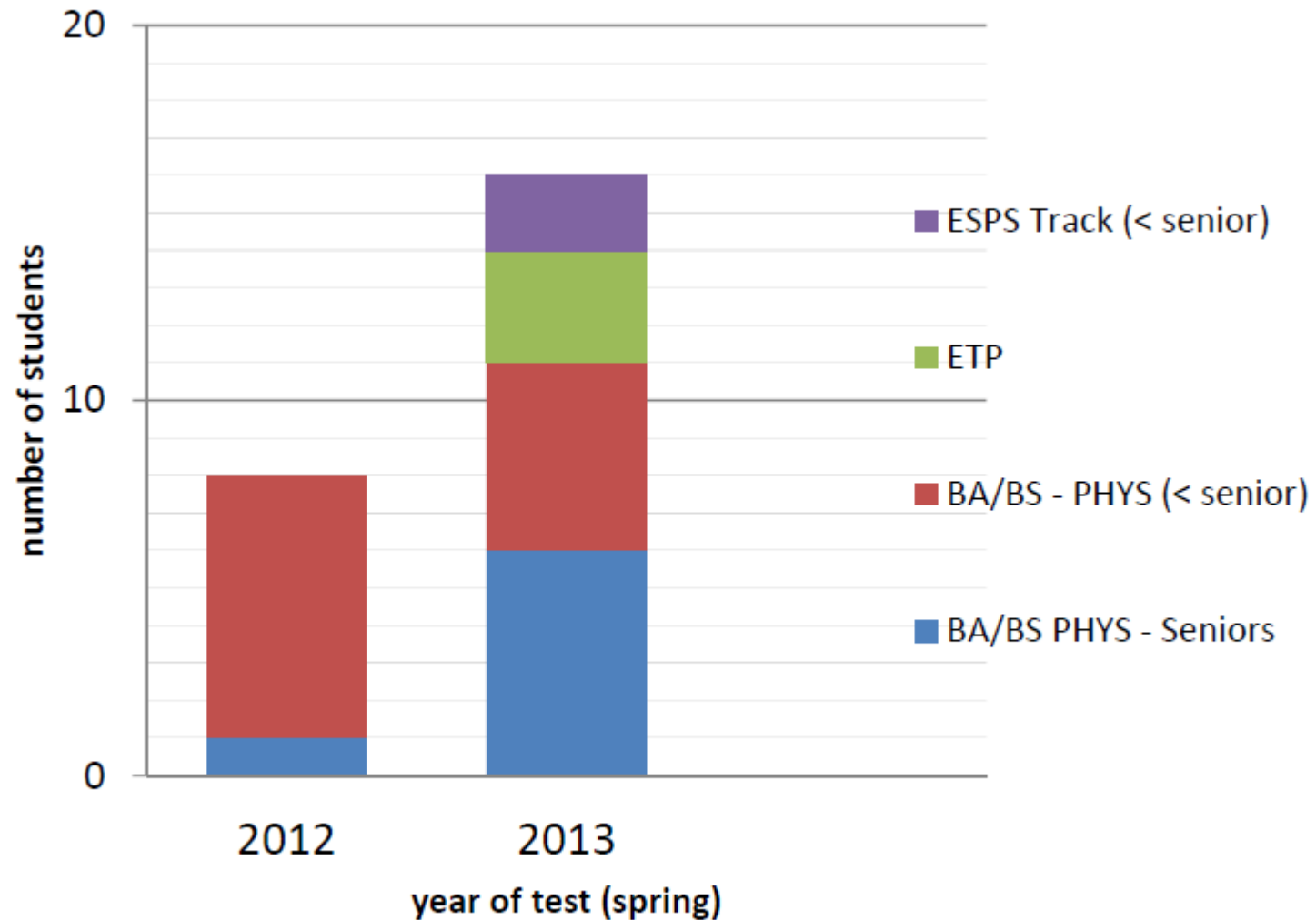
ETS MFT Physics

National test designed to assess
senior physics majors

What? When? Who? How? Why?

- Arrange through Office of Institutional Effectiveness (OIE) during the fall or winter
- OIE orders the tests and provides them to us
- Administered to students during the spring of each year, usually April
- Returned to OIE

What? When? **Who?** How? Why?



What? When? Who? **How?** Why?

The Physics Department Wants YOU
(junior and senior B.A., B.S., including Engineering Transfer)

- We choose a 400-level class and have all students in that class take it
- We “invite” all other students to take it

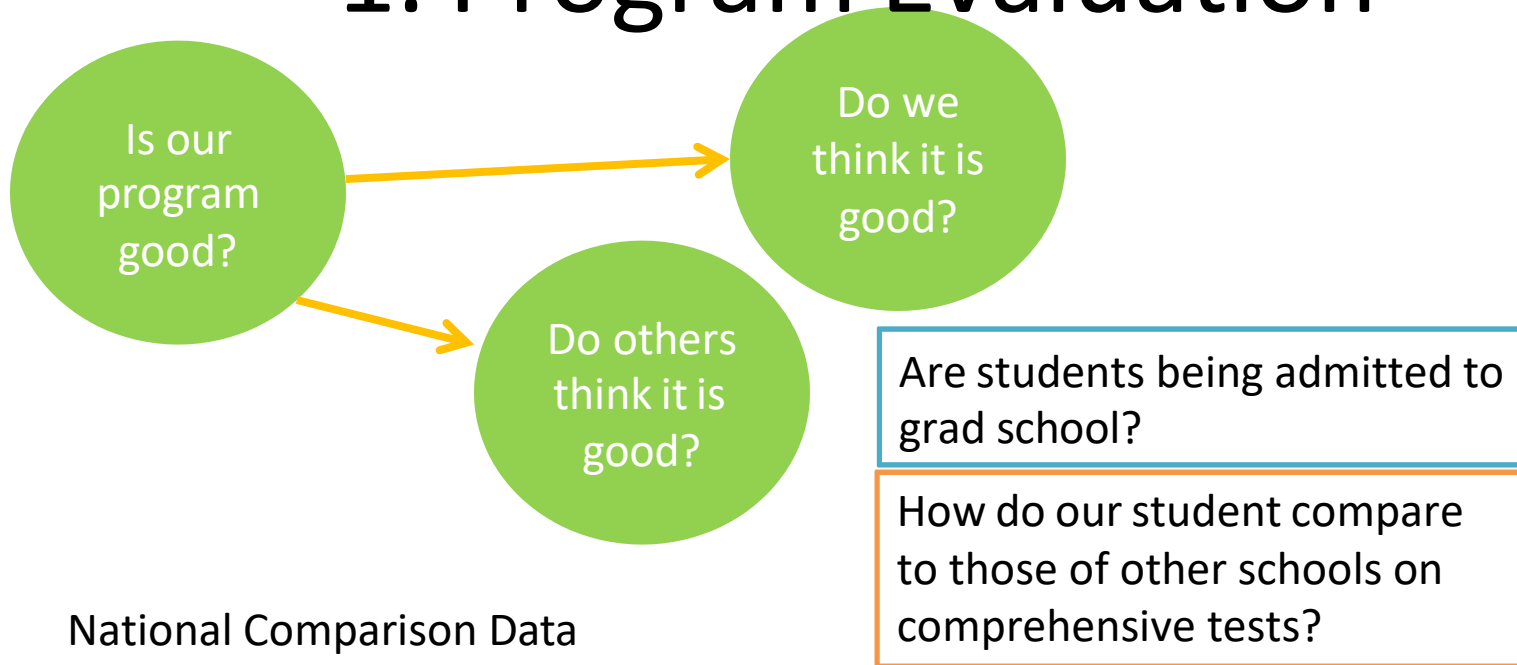


- For ETS testing Monday 4-29-2013
- 1-3PM Gessner 220
- Please help us collect this important data to help us continually improve our programs

What? When? Who? How? **Why?**

1. It helps us evaluate the program by comparing to national norms
2. It helps students predict their future performance on the GRE physics test
3. It helps us evaluate whether our grades and assessments adequately reflect student learning

1. Program Evaluation

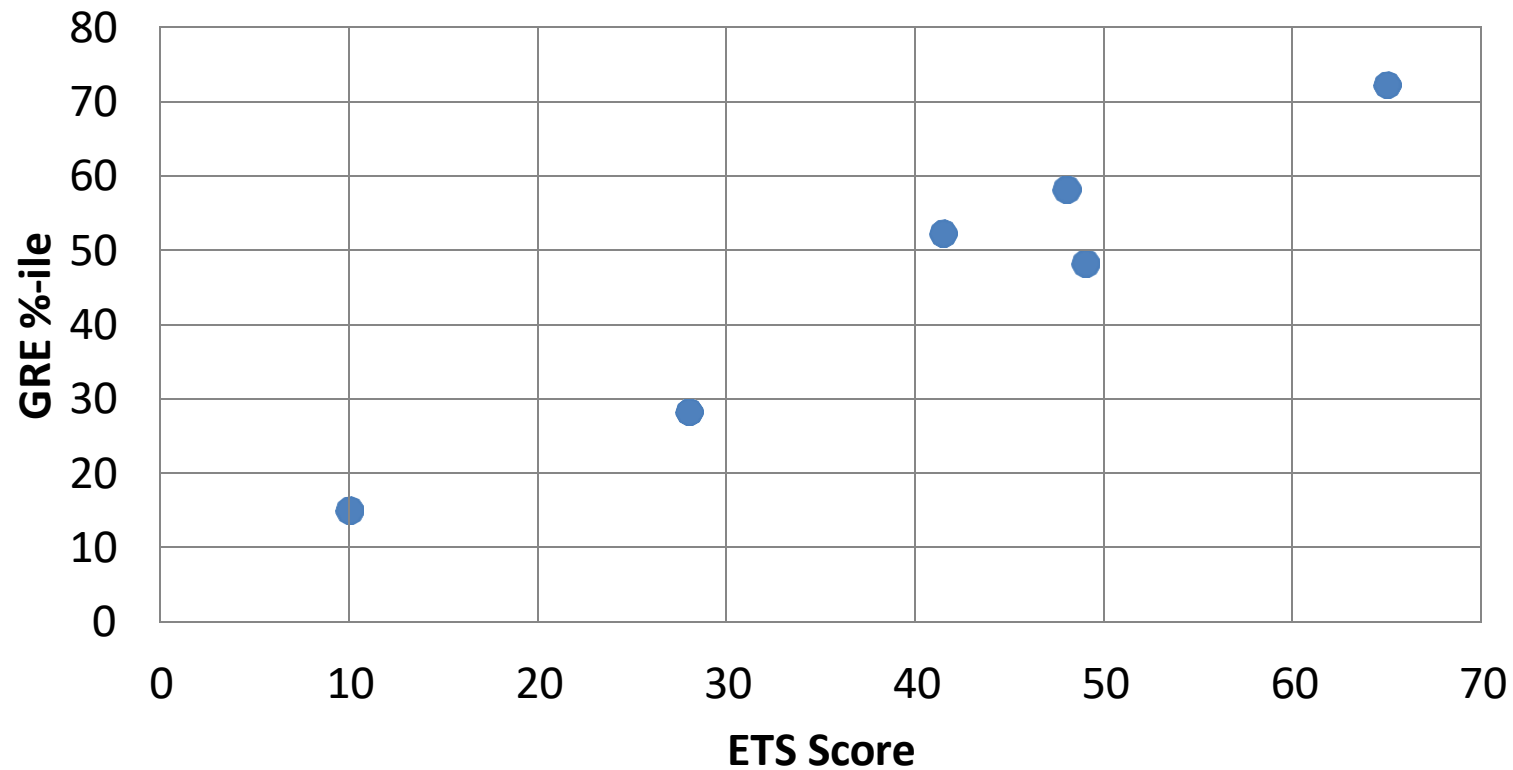


National Comparison Data

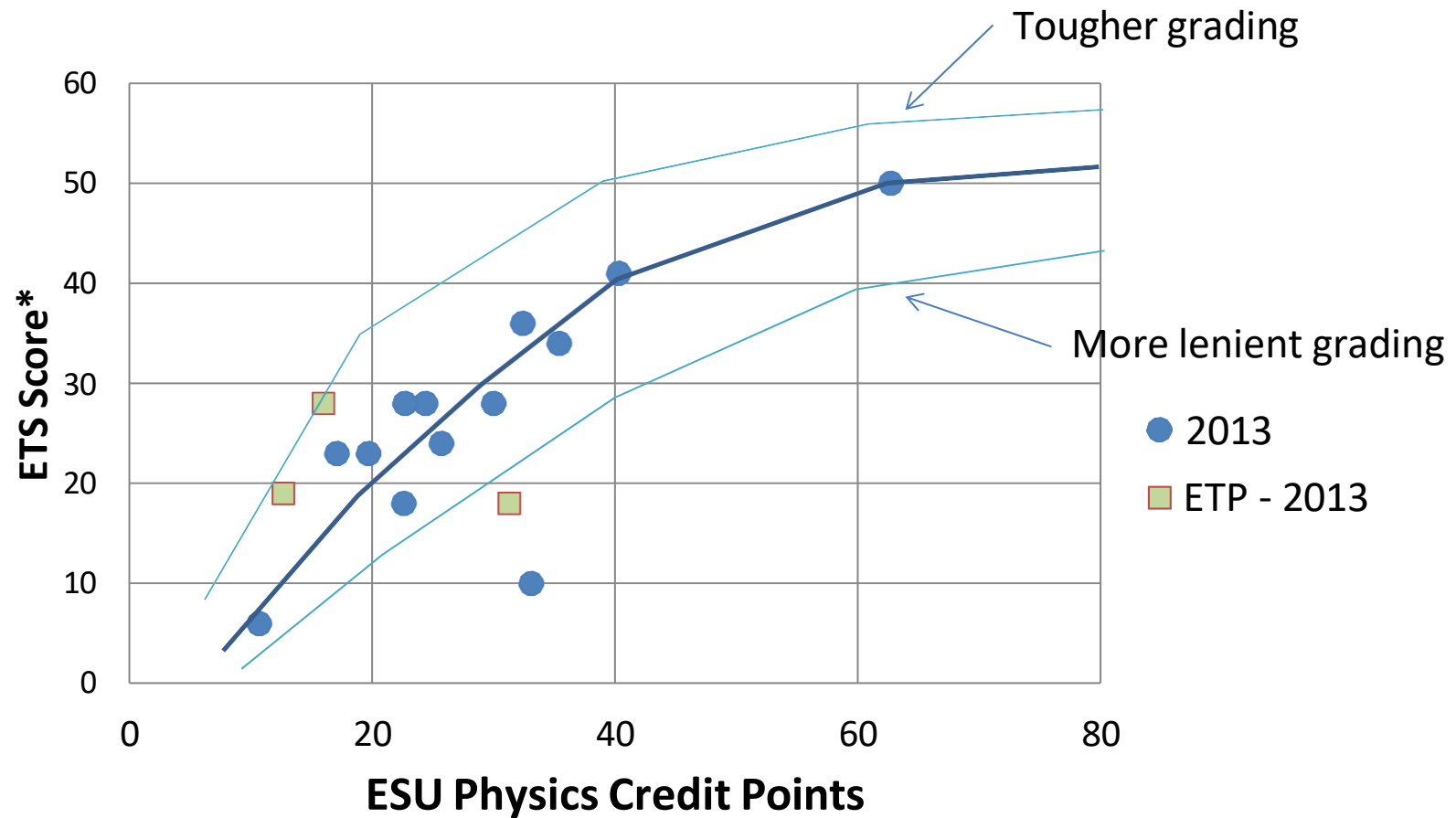
	2012 (percentile)	2013 (percentile)
B.S. PHYS Seniors compared to seniors	86	8 64 71 76 83 86
B.A. Seniors		42

2. Correlation with GRE

Physics GRE and ETS Scores



3. Correlation with grades

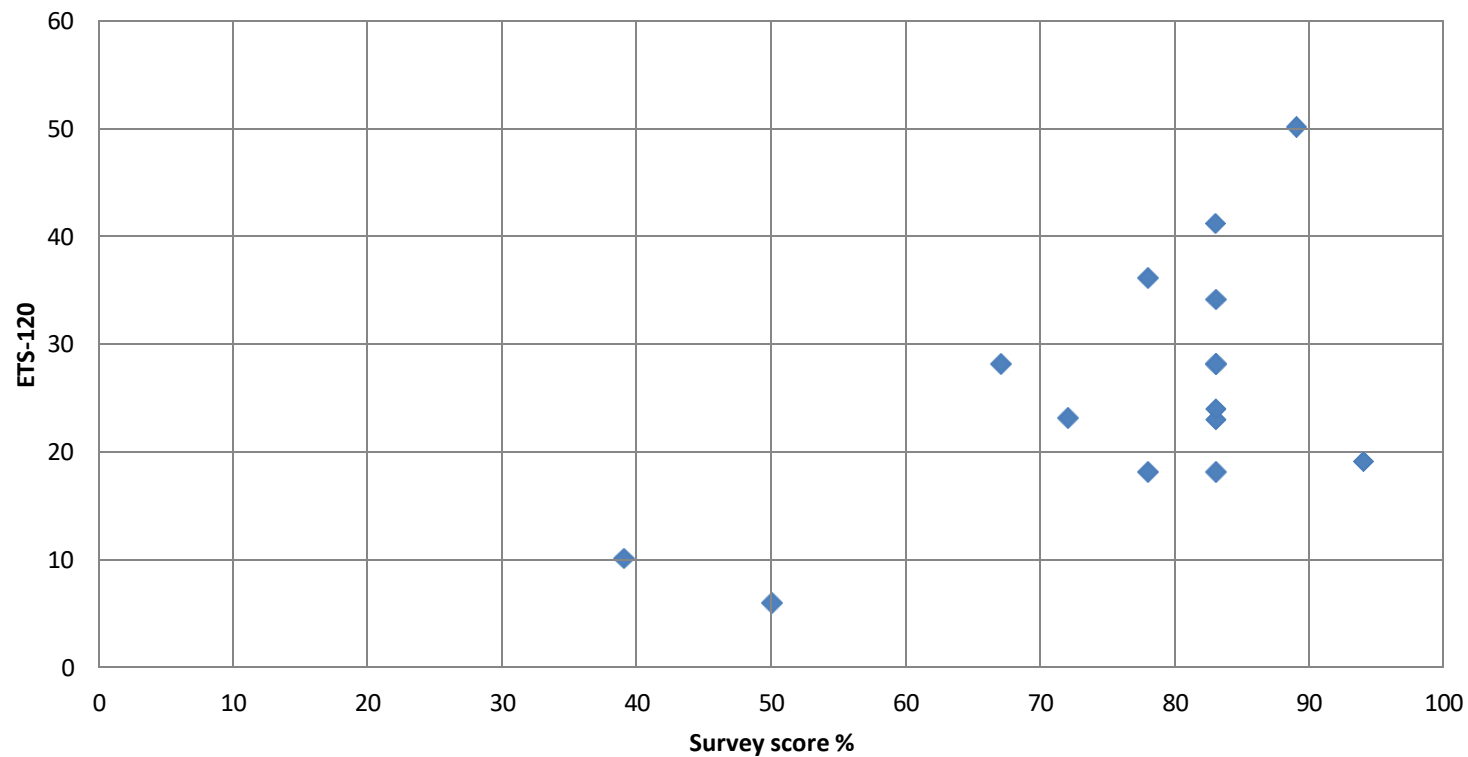


Acknowledgements

Office of Institutional Effectiveness for funding and support

4. Correlation with Other Assessments

Introductory Concepts Diagnostic Survey Scores



3. “Intro” content vs. grades

