PhysPort Implementation Guide: Perceptions of Teaching as a Profession for Higher Education Survey (PTaP.HE)

Version V.2a

PhysPort
Supporting physics teaching with research-based resources

Implementation Guide by Savannah Logan, Sam McKagan and Adrian Madsen

downloaded from PhysPort.org

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Implementation

Purpose of the PTaP.HE

To measure faculty perceptions and attitudes about teaching. The PTaP.HE is a sister assessment to the PTaP.

Course Level: What kinds of courses is it appropriate for?

Upper-level, Intermediate, and Intro college

Content: What does it assess?

Beliefs / Attitudes (Facts about Teaching, Salary, Teaching is a Good Career, Teacher Satisfaction, Respects Profession, Advising & Support, Teaching Advocate, Teaching is a STEM Profession, Faculty Support, Career Option)

Timing: How long should I give students to take it?

8-10 minutes

Example Questions

Example statements from the PTaP.HE:

I think grade 7-12 math or science teaching would be an enjoyable career day-to-day.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

I regularly discuss grade 7-12 math or science teaching as a career option with students.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Access: Where do I get the assessment?

Download the assessment from physport at www.physport.org/assessments/PTAPHE.

Versions and Variations: Which version of the assessment should I use?

The most recent version of the PTaP.HE, released in 2019, is version 2a.

Administering: How do I give the assessment?

- The PTAP.HE can be given as a paper/pencil survey or online using SurveyMonkey (PTaP.HE). If you would like to give the PTAP.HE using SurveyMonkey, please contact the developers first.
- Give the survey once to learn about how faculty perceive the teaching profession.
- Use the whole survey, with the original wording and question order. This makes comparisons with other classes meaningful.
- For more details, read the **PhysPort Guides** on implementation:
    - **PhysPort PTAP.HE implementation guide** (www.physport.org/implementation/PTAPHE)

Scoring: How do I calculate my students' scores?

- Download the scoring rubric from PhysPort (www.physport.org/key/PTaPHE)
- The percent favorable score is the percent of statements where the response is consistent with the expert response. For some questions, the expert response is fact-based, and the expert response is simply the correct answer. For the rest of the questions, the perceptions of those that are successfully involved with the recruiting and preparation of teacher candidates served as the expert response.
- The percent favorable for each category can be found using the categories in the "Clusters" section.

Clusters: Does this assessment include clusters of questions by topic?

Facts about Teaching

12, 25, 26, 30, 31, 32, 36, 40

Salary

33, 34, 35

Teaching is a Good Career

7, 25, 29, 30, 39, 40

Teacher Satisfaction

7, 30, 36, 38, 40

Respects the Profession

3, 7, 14, 23, 27, 28

Advising & Support

3, 5, 6, 9, 10, 12, 20

Teaching Advocate

2, 3, 8, 11, 24, 27

Teaching is a STEM Profession

14, 19, 20, 24, 27

Faculty Support

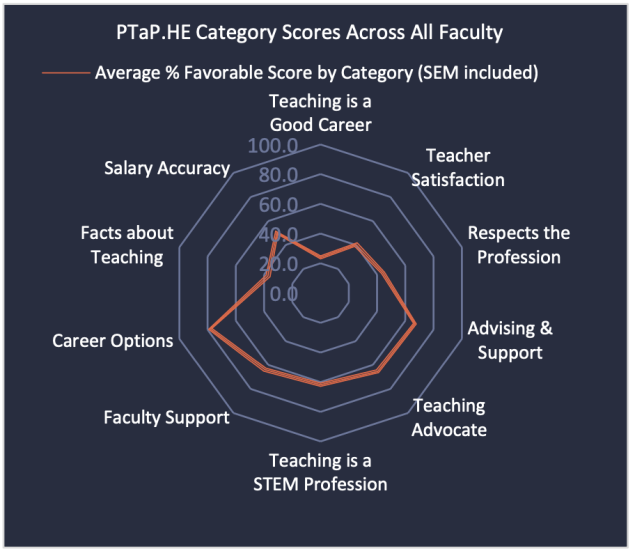
8, 11, 15, 22

Career Options

8, 17, 18

Typical Results: What scores are usually achieved?

PTaP.HE average percent favorable by category among college STEM faculty. Line thickness represents the standard error on the mean within each category (Breakall et al., 2020).



Interpretation: How do I interpret my students' scores in light of typical results?

The Get the Facts Out project plots the ten categories on the PTaP.HE on a radar plot to help departments measure support for and knowledge of different aspects of the teaching profession among their faculty members (see Typical Results). Additionally, it can provide a department with targets for improving perceptions, which can have a lasting impact on teacher recruitment at your university. For a list of questions included in each of these categories, see the "Clusters" section below.

Resources

Where can I learn more about this assessment?

S. Logan, J. Breakall, R. Pearson III, and W. Adams, College faculty support for grade 7-12 teaching careers: survey results and comparisons to student perceptions, presented at the Physics Education Research Conference 2020, Virtual Conference, 2020.

Translations: Where can I find translations of this assessment in other languages?

We don't have any translations of this assessment yet.

If you know of a translation that we don't have yet, or if you would like to translate this assessment, please contact us!

Background

Similar Assessments

The PTaP.HE is a sister assessment to the PTaP. Give the PTaP to assess student perceptions about grade 7-12 math and science teaching as a profession. Give the PTaP.HE to assess college/university faculty, staff and advisors' perceptions of grade 7-12 math and science teaching as a profession.

Research: What research has been done to create and validate the assessment?

Research Validation: Silver

This is the second highest level of research validation, corresponding to at least 5 of the validation categories below.

- Based on research into **student thinking**
- Studied using **student interviews**
- Studied using **expert review**
- Studied using **appropriate statistical analysis**

- [x] Research conducted **at multiple institutions**
- [ ] Research conducted **by multiple research groups**
- [x] **Peer-reviewed publication**

Research Overview

The questions on the PTaP.HE were developed based on topics that are important to faculty and teacher recruiters and the questions on the PTAP. The developers identified the various ways faculty thinking can deviate from expert thinking about these topics through individual interviews and focus groups, and created a Likert-scale instrument with some open-ended survey questions to probe faculty thinking more broadly. The developers conducted validation interviews with both novices and subject experts on the survey statements, and administered the survey to faculty broadly. The performed appropriate statistical analyses of the results, including a reduced-basis factor analysis was performed to identify statistically valid underlying factors within the survey. The PTaP.HE has been given to over 500 faculty, and the results published in three peer-reviewed publications.

Developer: Who developed this assessment?

Wendy K. Adams, Richard L. Pearson III, Savannah L. Logan

References

- J. Breakall, S. Logan, R. Pearson III, B. Pyper, and W. Adams, Maybe we aren't that different after all: Faculty perceptions of grade 7-12 teaching as a career, presented at the Physics Education Research Conference 2020, Virtual Conference, 2020.
- S. Logan, J. Breakall, R. Pearson III, and W. Adams, College faculty support for grade 7-12 teaching careers: survey results and comparisons to student perceptions, presented at the Physics Education Research Conference 2020, Virtual Conference, 2020.
- R. Pearson III, S. Logan, and W. Adams, Faculty perception insights obtained from faculty interviews during the development of the Perceptions of Teaching as a Profession in Higher Education (PTaP.HE) instrument, presented at the Physics Education Research Conference 2020, Virtual Conference, 2020.