

Disruptive Innovation in Physical Therapist Education  
Reimagining Physical Therapist Education: A Virtual Summit 2021

# Reduction of Unwarranted Variation in PT Education The "CON" perspective

Jill Horbacewicz PT MA PhD  
Chair and Associate Professor  
Physical Therapy Department,  
Special Assistant Vice President  
for Continuing Education TCUS  
Touro College New York, NY



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UNIVERSITY SYSTEM**

*Where Knowledge and Values Meet*

# Speaker Bio

- Chair of the Touro College Department of Physical Therapy
  - two DPT programs,
  - Post professional DPT program
  - Orthopedic residency. Led two successful CAPTE re-accreditation self studies 2010 and 2020.
- Full time faculty x 24 years, licensed PT x 35 years
- Co-Chair Touro SHS Interprofessional Education Committee
- Special Assistant Vice President of Continuing Education for TCUS
- Fellow of the charter class (2012) of the APTA Educational Leadership Institute (ELI).
- Previous member of the PTCAS work group
- Active member of the NYPTA AASIG.
- Unsuccessful candidate for ACAPT nominating committee x3!

Able to provide academic, clinical, and administrative perspectives.



# Reduction of *Unwarranted* Variation in PT Education

**un·war·rant·ed**

/,ən'wɔrən(t)əd/

adjective

not justified or authorized.



# Types of variation

## Hybrid PT Education

Description: ... and ... by it ... or not, varying ... online delivery of ... material, and how it may impact ... the cost of education (or not). There ... discussion of how COVID ... concept.

- **John Buford, PT, PhD** (Associate Professor & Director, PT Division, The Ohio State University (OSU), Columbus, OH), Con Team
- **John Buford, PT, PhD** (Professor & Director, PT Division, The Ohio State University (OSU), Columbus, OH), Con Team

Unified Start times/graduation dates

Time to enter clinical education

## Reduction of Unwarranted Variation in PT Education

Description: Speakers will present the pros and cons of unified start times/graduation dates, residency start time, time to enter clinical education, expectations for clinical rotations (Level 1 vs Level 2), the purpose of ICE/how they are done, standardization of curricula, and more

- **Mike Sheldon, PT, PhD** (Associate Provost for Academic Affairs, University of New England, Biddeford, ME), Pro Team
- **Jill Horbacewicz, PT, MA, PhD** (Associate Professor of Physical Therapy, University of New England, Biddeford, ME), Con Team

Standardization of curricula

And more!

## Competency-Based PT

Expectations for clinical rotations (Level 1 vs Level 2)

The purpose of ICE /How they are done

- **Carey Holleran, PT, MPT, DHS** (Professor of Physical Therapy & Neurology, Washington University School of Medicine in St. Louis, St. Louis, MO), Con Team



# Re-Imagining Physical Therapist Education



Stagnation stifles innovation.  
And yet.....



Placement within the curriculum  
Use of ICE's  
Full time/part time  
Time to enter clinical education  
Total hours

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# Clinical education



# Uniform Expectations

In order to get there...

Identical Courses/Content  
prior to the first clinical (and  
perhaps all clinicals)



Student will have the  
requisite knowledge skills  
behaviors and abilities for  
that specific clinical

Once we've accomplished that...

SCCE's and CIs in any clinic will all know  
what to expect of our student and can  
design authentic learning experiences





# However...

The collective core faculty of each program have primary responsibility for development, review and revision of the curriculum

Identical Courses/Content prior to the first clinical (and perhaps all clinicals)

Pedagogical philosophy

Location

Carnegie Classification

Mission



# However,

SCCE's and CIs in any clinic will all know what to expect of our students and can design authentic learning experiences

variation in CI abilities

variation in clinic expectations, productivity



# Expectations

- It is the responsibility of the program to ensure that the SCCE and CI are informed of the expectations for that Clinical Education Experience PRIOR to the start.
- As long as there is good communication of these expectations and confirmation of understanding, the existence of differences in expectations for various programs should not be a concern.
- Bonus- a strong local clinical consortia



Integrated Clinical Experiences

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**ICE**



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# Definitions (ACAPT Glossary)

**Clinical Education Experiences:** Experiences that **allow students to apply and attain professional knowledge, skills, and behaviors within a variety of environments.** Experiences include those of **short and long duration** (e.g., part-time, fulltime), provide a variety of learning opportunities, and include physical therapy services for patients/clients across the lifespan and practice settings. While the **emphasis is on the development of patient/client physical therapy skills,** experiences may also include **inter-professional experiences and non-patient/client service delivery** such as research, teaching, supervision, and administration...



# Definitions (ACAPT Glossary)

**ICE- Integrated clinical education** is a curriculum design model whereby clinical education experiences are **purposely organized within a curriculum**. In physical therapist education, these experiences are **obtained through the exploration of authentic physical therapist roles, responsibilities and values that occur prior to the terminal full time clinical education experiences**. Integrated experiences are coordinated by the academic program and are driven by learning objectives that are aligned with didactic content delivery across the curricular continuum. These experiences **allow students to attain professional behaviors, knowledge and/or skills within a variety of environments**. The supervised experiences also **allow for exposure and acquisition across all domains of learning** and include student performance assessment.



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# Definitions (CAPTE)

**ICE-** Clinical education experiences that **occur before the completion of the didactic component of the curriculum.** Options include but are not limited to

- one day a week during a term,
- A short full-time experience at the end of a term,
- a longer full-time experience between two regular terms.

CAPTE has mandated that all PT education programs include integrated clinical experiences (ICEs) in their curriculum.







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**PT, DPT, DHSc** (Associate  
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Pro Team  
**nd** (Professor & Director,  
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- **Jill Horbacewicz, PT, MA, PhD** (Associate Professor and Chair, Physical Therapy Programs, Touro College, Bay Shore, NY), Con Team

## Time-Variable, Compete Education

**Description:** Speakers will  
cons of the need for, the v  
TB-CBE in PT education th  
continuum of learning.

- **Steve Ambler, PT, DP**  
Director of Profession  
Physical Therapy; As  
Physical Therapy & O  
Washington Universit  
St. Louis, St. Louis, M
- **Carey Holleran, PT, M**  
Professor of Physical  
Washington Universit  
St. Louis, St Louis, M

# Definitions (ACOTE)

Level I: Directed observation and participation in selected aspects of the occupational therapy process.

The goal of Level I fieldwork is to introduce students to fieldwork, apply knowledge to practice, and develop understanding of the needs of clients

Level I fieldwork may be met through one or more of the following instructional methods:

- Simulated environments
- Standardized patients
- Faculty practice
- Faculty-led site visits
- Supervision by a fieldwork educator in a practice environment



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# CONS of short ICE's

ex: one day a week, ½ day a week

- Taxes the system
- DCE's and all the support staff to place all these students
- CI's prefer longer time spans\*
  - No consistency
  - Burden due to staffing, scheduling, vacations, and holidays



\*Clin Ed advisory meeting Touro College (2019)



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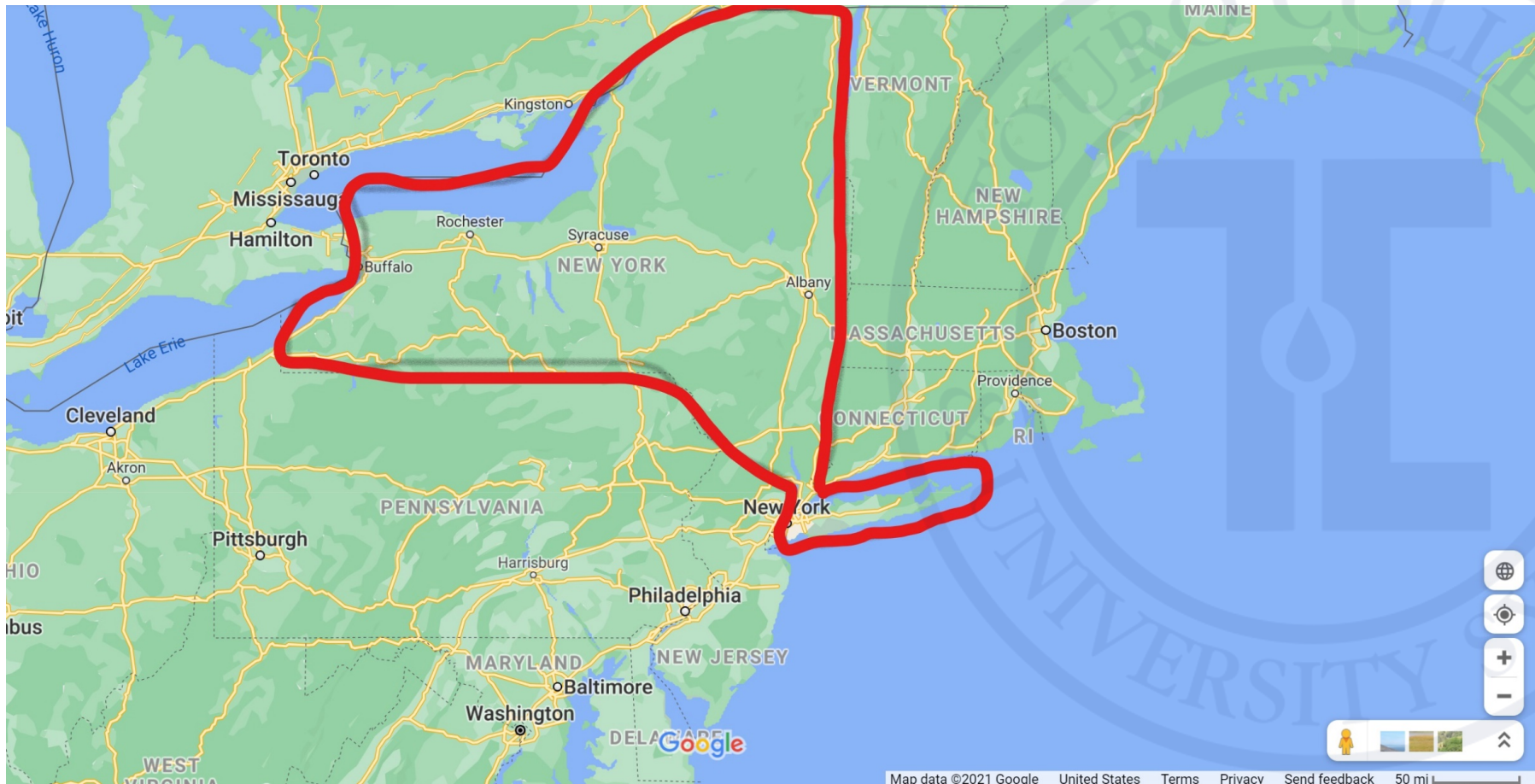
*Where Knowledge and Values Meet*

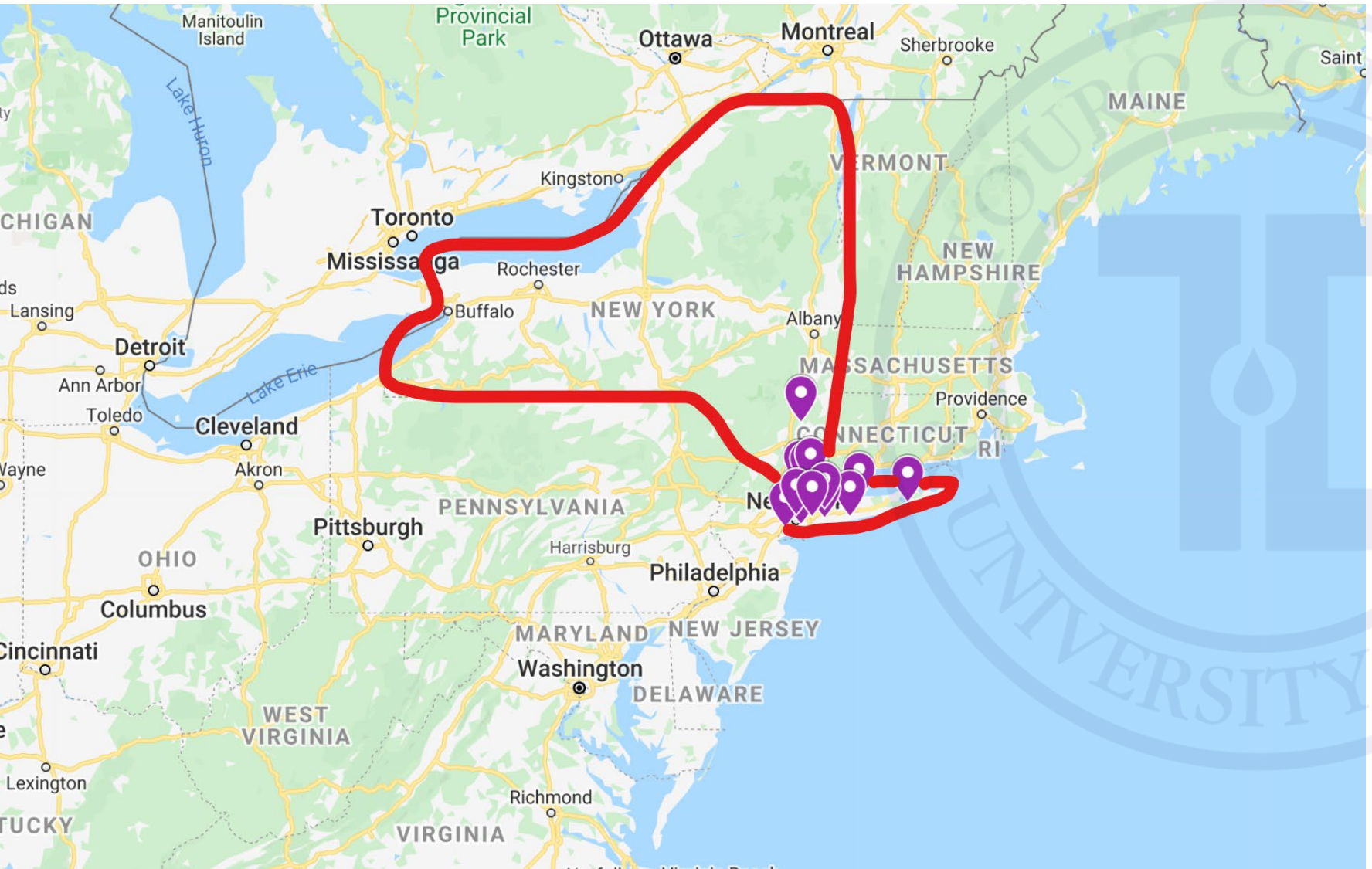
# CONS of short ICE's

What if we all decided to send all our students out one day/week?





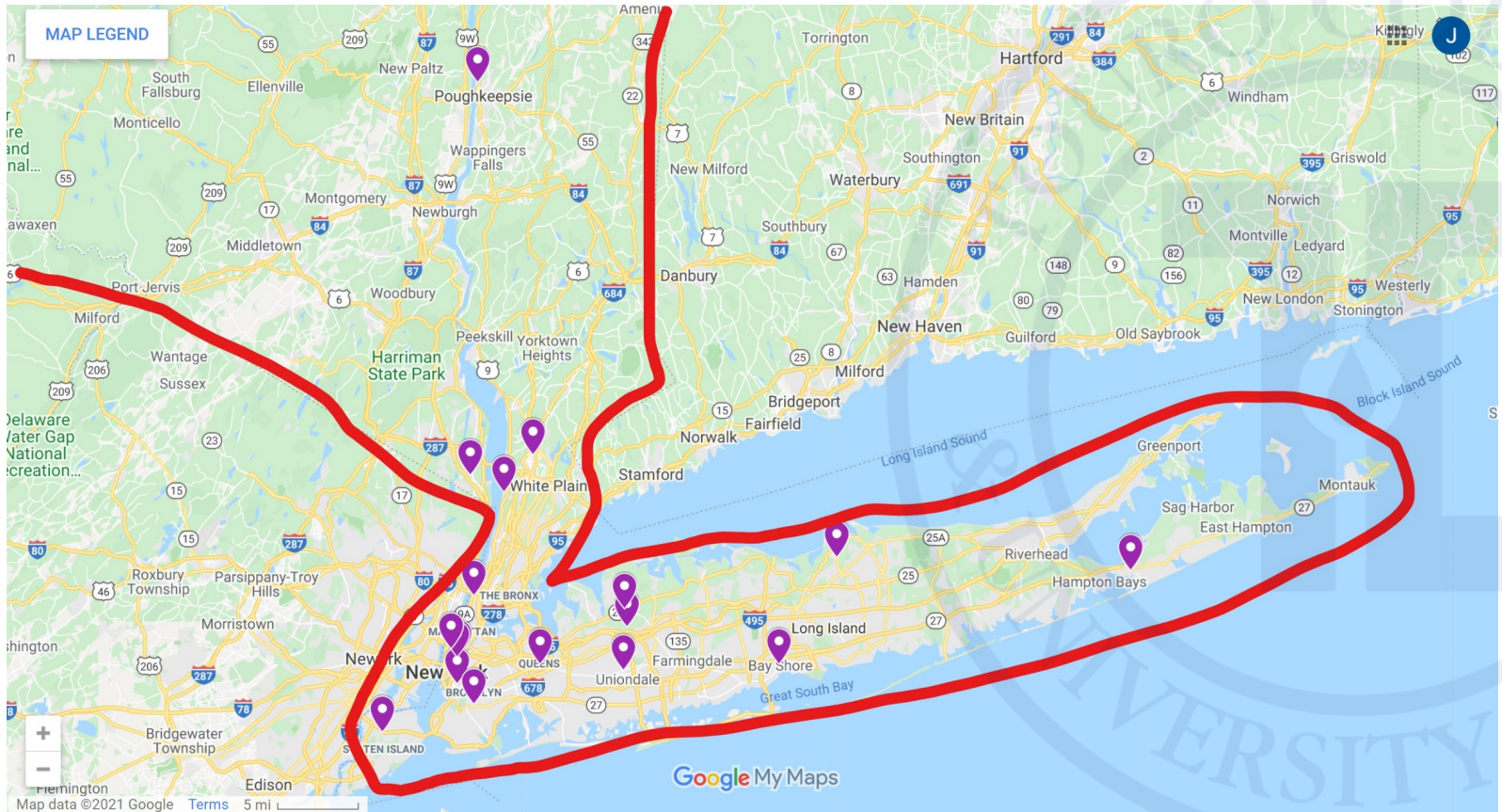




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# How does OT do it?

For Level I fieldwork, ACOTE accepts

- Simulated environments and simulations
- standardized patients
- faculty practice/on site clinics

*as a way to introduce students to fieldwork, apply knowledge to practice, and develop understanding of the needs of clients.*

CAPTE- "Integrated experiences cannot be satisfied with patient simulations or the use of real patients in class; these types of experiences are too limited and do not provide the full range of experiences a student would encounter in an actual clinical setting"

<https://www.capteonline.org/globalassets/capte-docs/capte-pt-standards-required-elements.pdf>



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# How does OT do it?

For Level I fieldwork, ACOTE accepts

- Simulated environments and simulations
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*as a way to introduce students to fieldwork, apply knowledge to practice, and develop understanding of the needs of clients.*

Personnel who supervise Level I fieldwork include, but are not limited to,

- occupational therapists
- occupational therapy assistants,
- psychologists,
- physician assistants,
- teachers,
- social workers,
- physicians,
- speech language pathologists,
- nurses,
- physical therapists.



# How does OT do it?

- Level 2: Can be full time or part time and add up to 24 weeks full time.
- Preceptor- min 1 yr of practice as an OT
- C.1.14- Fieldwork Supervision where no OT services exist  
Preceptor- OT with min of three year experience must provide a min of 8 hours of direct supervision per week and be reachable all other work hours.



# ICE's are important for learning

- Incorporating best practices in our curricula based on principles of educational neuroscience
- allowing time for practice
- attaching meaning to new learning
- Have to *actively* work with the material- observations don't really get the job done there. Perhaps it is better to do in house sims.
- Need *practice* and *repetition* in a variety of situations.

Principles of Curriculum Design and Construction Based on the Concepts of Educational Neuroscience

Watagodakumbura, Chandana *Journal of Education and Learning*, v6 n3 p54-69 2017

Barbara Oakley - How Neuroscience Is Changing What We Know about Learning. INTED2019 Keynote Speech--

<https://www.youtube.com/watch?v=m9wXxywLVtQ>



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# We need longer "short ICE's"



# CONS of short ICE's

ex: one day a week, ½ day a week

One day



One year

The ideal model would be a BLEND of long and short(ish) either within a semester or immediately after a semester.

Barriers:

constraints of semesters and credits loads





# Time to Enter Clinical Education

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Expectations- uniform?

Student readiness



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# When are they ready?

~~" Wait 'til they go to the clinic..."~~

It is the responsibility of academic programs to ensure that students are prepared to perform in the clinical environment



# Expectations for a first clinical

## Physical Therapist Student Readiness for Entrance Into the First Full-Time Clinical Experience: A Delphi Study

- 95 elements categorized under 14 themes which were deemed essential for readiness for the first clinical experience
- 9 elements met the 80% threshold for consensus as requiring *proficiency* prior to the first full-time clinical experience
- Of those 9, 3 had to do with academics the other 6 with professional behaviors

Timmerberg JF, Dole R, Silberman N, Goffar SL, Mathur D, Miller A, Murray L, Pelletier D, Simpson MS, Stolfi A, Thompson A, Utzman R. Physical Therapist Student Readiness for Entrance Into the First Full-Time Clinical Experience: A Delphi Study. *Phys Ther.* 2019 Feb 1;99(2):131-146. doi: 10.1093/ptj/pzy134. PMID: 30561680.



# Expectations for a first clinical

- Demonstrate polite, personable, engaging, and friendly behaviors
- Introduce oneself to CI, staff and patients
- Respect for patients peers health care professionals and community
- Punctuality with all assignments
- Understanding HIPAA regulations
- Appropriate dress code



# Expectations for a first clinical

- **Characteristics of student preparedness for clinical learning: clinical educator perspectives using the Delphi approach.**
- 57 characteristics categorized under 6 themes perceived by clinical educators as indicators of a student who is prepared and ready for clinical learning.
- The three themes viewed as more important than others were 'willingness', 'professionalism' and 'personal attributes' more than knowledge and understanding
- Chipchase, L.S., Buttrum, P.J., Dunwoodie, R. *et al.* Characteristics of student preparedness for clinical learning: clinical educator perspectives using the Delphi approach. *BMC Med Educ* **12**, 112 (2012). <https://doi.org/10.1186/1472-6920-12-112>



# Expectations for a first clinical

- “....views on student preparedness appear to be based on external professional traits, such as appropriate dress and appearance, and a willingness to be involved in learning and the placement rather than a specific level of knowledge and understanding.”

Chipchase, L.S., Buttrum, P.J., Dunwoodie, R. *et al.* Characteristics of student preparedness for clinical learning: clinical educator perspectives using the Delphi approach. *BMC Med Educ* 12, 112 (2012). <https://doi.org/10.1186/1472-6920-12-112>





# Expectations for a first clinical

## Objectives to Assess Student Readiness for First, Full-Time Clinical Education Experiences in Physical Therapist Education

22 readiness objectives using Blooms taxonomy for 15 performance criteria of the CPI.

10 of 22 (45%) readiness objectives were within the performance criteria "Professional Behaviors," "Communication," and "Accountability."

Objectives to Assess Student Readiness for First, Full-Time Clinical Education Experiences in Physical Therapist Education  
Dupre, Anne-Marie PT, DPT, MS, NCS; McAuley, J. Adrienne PT, DPT, MEd, OCS, FAAOMPT; Wetherbee, Ellen PT, DPT, Med Journal of Physical Therapy Education: Journal of Physical Therapy Education. 34(3):242-251, SEPTEMBER 2020 DOI: 10.1097/JTE.000000000000151



# When are they ready?

- It is the program's responsibility to develop those skills and not burdening the clinic with these issues
- There most likely is not a lot of variety or disagreement about these indicators of readiness related to professional behavior.
- The rest of the list- - the knowledge and skills can vary somewhat





# Placement of Clin Ed in the Curriculum

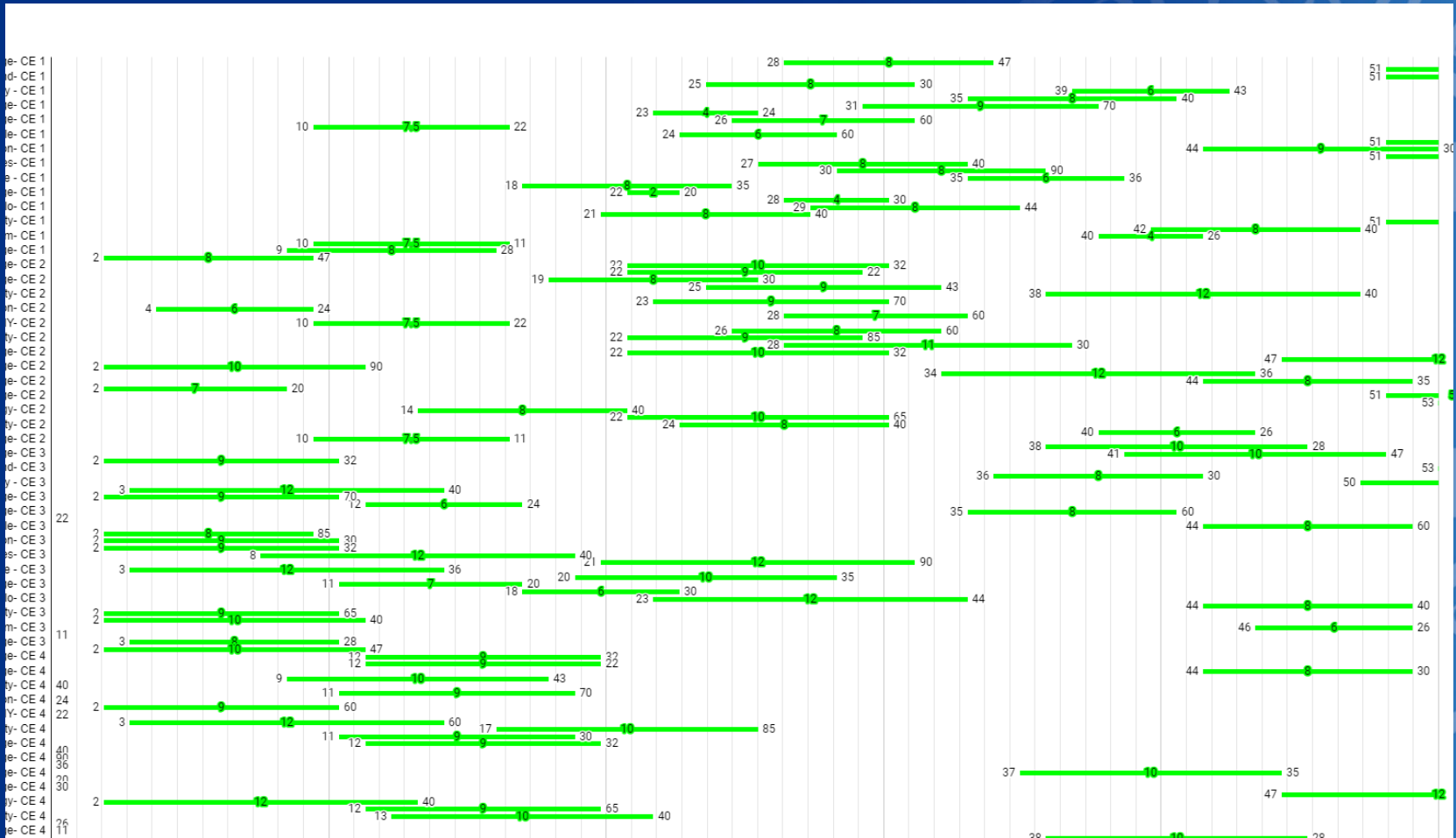
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# Clinical education placement



# Placement of Clinical within the curriculum



I wish we had \_\_\_\_\_ before that clinical



I wish the students had already been to the clinic before taking my \_\_\_\_\_ class



# Placement of Clinical within the curriculum

- No matter what program a student is in, students will be the least skilled in whatever their first clinical is.
- It is impossible for them to have all their clinical courses in all subjects and systems before all clinicals, therefore there will be a situation where students in the same level of the program might not have the skillset to perform equally if one is placed in a setting for which they have had less of that coursework.
- Rotating through many settings ( PA, MD) gives overall breadth but repeatedly puts one back into beginner mode.

**It is beneficial to allow each program to figure out what works best for their curriculum/students/clinical sites vs. mandating a specific structure**



# Unified Start and End times

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# Unified start time and grad times-

Is it possible for all DPT programs to start and end together?

- **First priority: Unify start and end time within one's own institution.**
- Uniform semester dates within one's institution
  - Allow for interdisciplinary programming/ Interprofessional collaborative courses where student learn "with from and about each other"
    - Recommendations such as embedding interprofessional groups of students longitudinally can be made possible.
  - Ease registrar reporting requirements to the federal government
  - Streamlines financial aid and deadlines
  - Simplifies graduation planning and attendance
- *Then we can consider- Can they/should they also unify their dates with all DPT programs across the country?*



# Unified start time and grad times-

Is it possible for all DPT programs to start and end together?

It's not possible to both sync up within one's own university and then also match 250+ other program's dates.

**Measures of Program Length**

**Table 5 Academic calendar 2019 – 20 (%)**

	% of programs
Semesters	86.3%
Trimesters	8.9 %
Quarters	4.8 %

<https://www.capteonline.org/globalassets/capte-docs/aggregate-data/2019-2020-aggregate-pt-program-data.pdf>





# Unified start time and grad times-

Is it possible for all DPT programs to start and end together?

## DPT programs vary in length ( 69 – 180 weeks)

2019 – 2020 Fact Sheets  
Physical Therapist Education Programs

**Table 7** Average length of professional program

Length in Weeks		
Number of weeks in didactic portion	Range	32-157
	Mean	88
	STDEV	15.1
Number of weeks in full-time clinical education	Range	30-56.6
	Mean	35.8
	STDEV	5
Total number of weeks in program	Range	69-180
	Mean	123.8
	STDEV	14.3

<https://www.capteonline.org/globalassets/capte-docs/aggregate-data/2019-2020-aggregate-pt-program-data.pdf>



# Unified start time and grad times-

Is it possible for all DPT programs to start and end together?

## CONS

- No flexibility for perspective students
  - Varying start times increases options for attendance
  - Some may be set back a year if they cannot finish undergrad before DPT school begins
  - Less options for entry into a program
  - Graduate education is attended by graduate students with more demands on their time. Some schedules work better than others
- NPTE scheduling
- Employment opportunities



Also to consider, if we move towards competency-based and away from time-based would we still advocate for uniform start and end dates?



# Standardization of curricula

- *24. Stop expending resources of the profession, and of academic and clinical programs, in attempting to identify a narrow set of specific academic organizational structures or curricular models for physical therapist education. Rather, resources should be expended on using sound educational research to identify the best array of options that lead to success with the other characteristics identified here. This would result in academic and clinical education programs that display a diversity of models and organizational structures, all of which have been shown to lead to success in achieving excellence and innovation.*

**National Study of Excellence and Innovation in Physical Therapist Education: Part 2—A Call to Reform**

Gail M. Jensen, Laurita M. Hack, Terrence Nordstrom, Janet Gwyer, Elizabeth Mostrom

*Physical Therapy*, Volume 97, Issue 9, September 2017, Pages 875–888, <https://doi.org/10.1093/ptj/pzx062>



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# Standardization of curricula

Developing a curriculum based on the concepts of educational neuroscience and educational theory to optimize learning is the only thing we really need to standardize.

- Allowing time for practice vs cramming
- Emphasizing retrieval of learned material
- Attaching meaning to new learning
- Helping student make connections between topics and see future uses of their new learning
- Integrating new topics with information that was previously taught
- Active learning

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Watagodakumbura, Chandana *Journal of Education and Learning*, v6 n3 p54-69 2017

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<https://www.youtube.com/watch?v=m9wXxywLVtQ>



# Standardization of curricula

- If we all have the exact same curricula we might limit opportunities to do educational research.

**ALL  
THE  
SAME**



# And more!

It has been suggested that another unwarranted variation is that we all have different teachers teaching some of the content and perhaps we should just have a few experts teach (as opposed to the students own school's faculty)

Emanuel EJ. The Inevitable Reimagining of Medical Education. *JAMA*. 2020;323(12):1127–1128. doi:10.1001/jama.2020.1227



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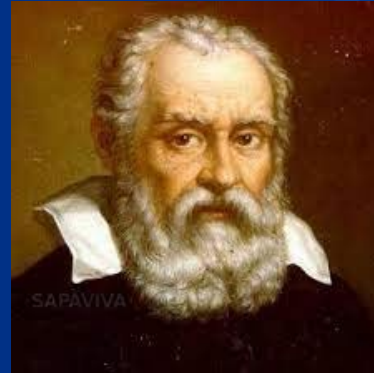
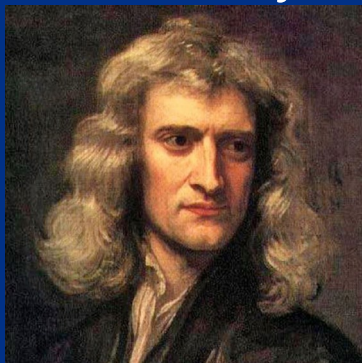
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# Standardization of curricula

## Food for thought ( CON?)

- If all schools are all using the same content videos ( even with their own faculty facilitating the active learning portions) why choose one over another?
- The benefits of asynchronous learning can still exist
- Would contribute further to the faculty shortage problem. Less opportunity to enter in and become the expert
- Diversity







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<https://www.homedit.com/exterior-house-paint/valparaso-chile/>



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Chair and Associate Professor  
Physical Therapy Department,  
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