



A Vision for Excellence in Physical Therapy Education

Culmination of the Work of the Education Leadership Partnership
August 2021

Introduction

Physical therapy education enjoys a long, rich history of evolution and innovation, from its beginnings in certification for reconstruction aides to adoption of the doctor of physical therapy degree for physical therapists, associate degree education for physical therapist assistants, and postprofessional residency and fellowship programs for physical therapists. As the profession continues to advance, education also must move forward to adequately prepare PTs and PTAs for providing the highest quality services to individuals and communities throughout their career.

Recognizing this need to continue physical therapy education's evolution, a team of education stakeholders has convened over the past several years committed to develop a comprehensive strategy. The aims are to ensure that education programs continue to meet high standards; accommodate the needs of students, educators, clinicians, and others who are invested in cultivating the profession's future workforce; and produce providers from diverse populations and backgrounds who have the requisite knowledge, skills, and attitudes to meet the societal need for physical therapist services.

The culmination of these efforts is the following report that outlines a shared vision for excellence in physical therapy education.

This vision represents a collaborative viewpoint of multiple stakeholder groups and individuals that have considered an array of opinions and resources to conceive a future that would demonstrate how the profession has advanced its opportunity to achieve excellence in physical therapy education. There is broad endorsement of this vision from the stakeholder group, and our expectation is that education stakeholders will now move from envisioning the future to effecting meaningful change in physical therapy education in the coming decades that advances the profession and societal health outcomes.

Current partners in the Education Leadership Partnership:



Community Partners: APTA Acute Care / APTA Private Practice Section
APTA Health Systems Council / PTA Education / Veterans Affairs

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Executive Summary

About the Education Leadership Partnership

The Education Leadership Partnership was created to generate a more global perspective on physical therapist education than any of the organizations or other stakeholders could provide on their own. Together, the organizations share their interest and expertise in promoting excellence in physical therapist education.

The work of the partnership has focused primarily on recommendations from APTA's Excellence in Physical Therapist Education Task Force and Best Practice for Physical Therapist Clinical Education Task Force. Additionally, findings of the National Study on Excellence and Innovation in Physical Therapist Education have informed these efforts.

The partners' overall education strategy for their work contains four strategy categories — Education Research, Outcomes, Essential Resources, and Academic-Clinical Partnerships — which were represented by strategy groups that met during the data collection period. An additional category, the Clinical Education Strategy Group was charged in 2018 to develop a series of prioritized recommendations that should be considered in the other four categories. Those recommendations were developed, and in 2019 the work related to them was incorporated into the four strategic planning groups. That work is summarized within the descriptions of each strategy group below.

In addition, a separate Student Debt Task Force was dedicated to addressing debt from student loans related to physical therapy education.

Achieving the Vision for Excellence in Physical Therapy Education

In 2020, the partners completed their collection of strategic data, and received [a consultative review and report from McKinley Advisors](#), which analyzed and presented all the findings that the partners used to develop a long-term education strategy for the physical therapy profession. To that end, the partnership stakeholders drafted — then reviewed and refined through several comment opportunities — a shared Vision Sentence and Vision Statement to reflect achievement of excellence in physical therapy education. The sentence and statement are anchored by six pillars representing focus areas that will require thought and action if the vision is to be achieved.

Vision Sentence

Advancing excellence in physical therapy education across the learner continuum to meet societal health needs and optimize patient and client outcomes.

Vision Statement

Excellence in the practice of physical therapy requires a well-developed educational framework for physical therapists and physical therapist assistants. That framework must include strong partnerships among education stakeholders for a shared commitment to the development and application of evidence-based approaches in education and practice. The learning continuum begins with exposure to the profession and progresses through entry-level education programs, postprofessional or posttechnical development, and continuing education throughout physical therapists' and physical therapist assistants' careers.

By optimizing movement, physical therapists and physical therapist assistants address challenges that impact the well-being of individuals and communities. We serve as leaders, in collaboration with other health care professionals, to overcome barriers, increase access to care, and improve health outcomes.

The path to achieving the vision for physical therapy education focuses on operational definitions of six pillars:

- 1. Accessibility of Education**
- 2. Collaboration and Networks**
- 3. Competency-Based Education**
- 4. Diversity, Equity, and Inclusion**
- 5. Education Research and Data Management**
- 6. Infrastructure, Capacity, and Faculty Development**

Each operational definition is followed by guiding principles that are aspirational statements reflecting achievement of the vision in that pillar.

Accessibility of Education

Operational definition: Physical therapy education is an accessible and financially viable option to individuals interested in pursuing and advancing their career in physical therapy.

Guiding Principles

- **Learners from diverse backgrounds, experiences, and identities are encouraged to enter the profession.**
- **Learners along the continuum will have access to career resources and advising that support an understanding of the full cost and benefits of education.**
- **There is continual advocacy for accessibility of education, sustainable payment, and appropriate compensation levels across the profession.**

Collaboration and Networks

Operational definition: Effective decision-making and continuous learning are driven by greater connection, knowledge-sharing, and access to information within clinical and academic partnerships and across education stakeholder groups.

Guiding Principles

- **Clinical and academic partnerships support the provision of learning and delivery of person-centered care.**
- **Clinical and academic partners have clear roles and responsibilities, including a shared obligation to learner development that will result in optimal outcomes that ensure learner readiness to meet performance expectations.**
- **Clinical and academic stakeholders in all settings participate in open and inclusive intraprofessional and interprofessional partnerships to leverage communication frameworks that ensure access to supportive infrastructures.**

Competency-Based Education

Operational definition: Individuals are assessed on an evidence-based, consensus-driven set of learner performance outcomes over time, and progress along the learner continuum when competence is demonstrated.

Guiding Principles

- **There is a defined set of standard performance outcomes for learners across the learner continuum in physical therapy education.**
- **Education research is used to inform the competency-based education approach in physical therapy.**
- **Physical therapists and physical therapist assistants demonstrate continuing competence, ensuring consistency in practice.**

Education Research and Data Management

Operational definition: Use of education research, data, and data analytics drive decision-making to identify processes that promote learner development and outcomes to meet the needs of society.

Guiding Principles

- **Researchers explore, identify, and benchmark key workforce and programmatic issues.**
- **Readily accessible data and research findings will facilitate further education research across the learner continuum to inform best practices.**
- **Research and data analytics related to diversity, equity, and inclusion inform best practices in physical therapy education across a broad community of learners.**
- **An engaged community of researchers across settings collaborates and shares knowledge that advances education and practice in physical therapy.**
- **An engaged community of researchers offers professional support for education stakeholders through training, career resources, grant-writing support, mentorship, and more.**

Diversity, Equity, and Inclusion

Operational definition: Physical therapy education is equitable, inclusive, and welcoming to individuals interested in pursuing and advancing a career in the profession, so that learners, educators, and leaders reflect the many dimensions of individual differences represented in communities and society.

Guiding Principles

- **There is shared commitment to advancing DEI across the physical therapy learner continuum as evidenced by intentional recruitment, inclusive admissions processes and retention strategies, and support for ongoing education and success for a diverse group of learners.**
- **Clinicians, students, and programs participate in career pathway development, by focusing on underserved, underrepresented, and marginalized populations.**
- **Academic and clinical educators actively support inclusive environments in their programming through an understanding of the benefits of cultural humility and a diverse team, as well as of the barriers created by overt and implicit bias.**

Infrastructure, Capacity, and Faculty Development

Operational definition: Physical therapy education programs along the learning continuum have adequate resources to accomplish education aims.

Guiding Principles

- **Educators continually advance their knowledge, skills and attitudes to deliver evidence-based educational and practice aspects of curricula, and to serve as leaders and mentors.**
- **Learners have access to support and resources that facilitate learning and address their educational needs.**
- **Education programs strive to meet a common set of aspirational benchmarks that ensure delivery of high-quality education to learners.**
- **Education programs individually and collectively produce high-quality research that contributes to the physical therapy profession's body of evidence.**
- **A common placement management system maximizes grassroots partnerships to increase efficiencies in clinical education.**

Background

About the Education Leadership Partnership

The Education Leadership Partnership was established in 2016 through a memorandum of understanding between the **American Council of Academic Physical Therapy, the American Physical Therapy Association, and the APTA Academy of Education**. The partnership was created to generate a more global perspective on physical therapist education than any of the organizations or other stakeholders could provide individually. Together, the organizations share their interest and expertise in promoting excellence in physical therapist education.

Since the partnership was established, more stakeholders were added to ensure a broad representation of perspectives. Nonvoting members of the partnership include representatives from the **American Board of Physical Therapy Residency and Fellowship Education, the American Board of Physical Therapy Specialties, the Commission on Accreditation in Physical Therapy Education, the Federation of State Boards of Physical Therapy, and five community partners who represent acute care, health systems, physical therapist assistant education, private practice, and Veterans Affairs**.

The work of the partnership initially focused primarily on recommendations from the Excellence in Physical Therapist Education Task Force; subsequently adding four recommendations from the Best Practice for Physical Therapist Clinical Education Task Force and a request from APTA's Board of Directors to propose a long-term strategic plan for the future of physical therapy education. Additionally, findings of the National Study on Excellence and Innovation in Physical Therapist Education and other resources from within and outside the profession have informed these efforts.

Excellence in Physical Therapist Education Task Force

In 2014, APTA's House of Delegates adopted RC 12-14: Promoting Excellence in Physical Therapist Professional Education. In response, the APTA Board of Directors created the Excellence in Physical Therapist Education Task Force, which worked for approximately one year and proposed six recommendations in a report to the Board. In November 2015, the Board reviewed and adopted the recommendations, adding two more: that PTA education issues be explored, and that a steering committee, which came to be the Education Leadership Partnership, be developed.

Excellence in PT Education Task Force Recommendations

Outcome Competencies - Graduates	Research Agenda	
Standardized Performance-Based Assessments - Students	Faculty Development	PTA Education Issues
Data Management System	Essential Resources	Education Steering Committee

Best Practice for Physical Therapist Clinical Education Task Force

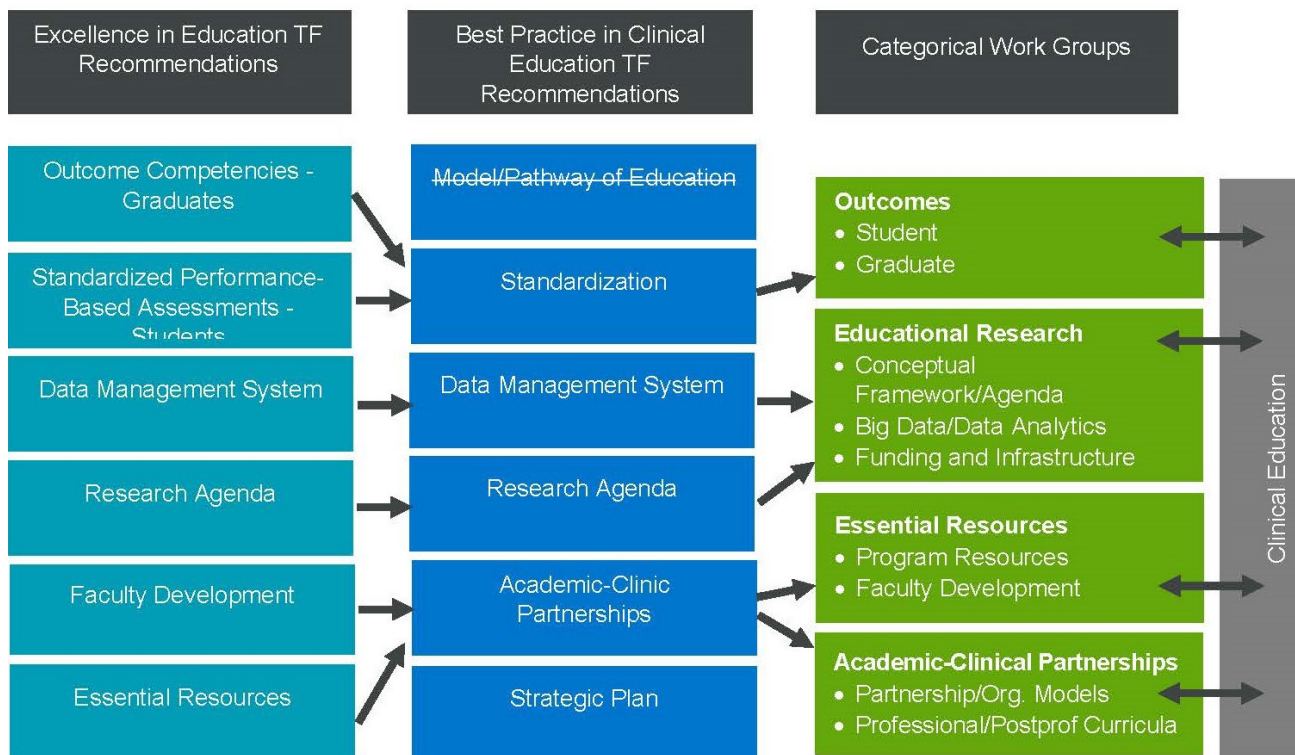
Following adoption of the Excellence in Physical Therapist Education Task Force recommendations, the Board appointed the Best Practice for Physical Therapist Clinical Education Task Force in 2016 to focus on clinical education. The task force worked for just over one year and proposed five recommendations in its report to the

Board in January 2017. The Board asked the Education Leadership Partnership to facilitate stakeholder feedback on the recommendations and report its findings to the Board. Following a stakeholder feedback process that included a survey, five town halls, a narrated overview, and an FAQ on APTA's website, the partners provided a report to the board in November 2017. The Board adopted four of the recommendations presented by the task force and requested that the partnership add those four recommendations to its scope of work, as well as to propose a long-term strategic plan for the future of physical therapy education.

Best Practices in PT Clinical Education Task Force Recommendations



In response, the partnership realigned its work, determining that before a strategic plan could be created, the partners first needed to focus on developing a collaborative vision that could serve as a catalyst to achieving the recommendations of the two task forces. The partners clustered components from the task forces' recommendations and identified four areas of focus: education research, outcomes, essential resources, and academic-clinical partnerships. The approach to these areas of focus included an agreement that they should be interconnected rather than siloed, and that clinical education should be threaded throughout, as opposed to being considered a separate component.



Additionally, the partners agreed that the future of physical therapy education should be viewed along a learner continuum that begins when prospective students are considering a career in physical therapy and

ends when one exits their practice as a physical therapist or physical therapist assistant. The perspective reinforces the concept of lifelong learning, the master adaptive learner, and the need to demonstrate continuous competence.

Physical Therapist Continuum of Learning



Physical Therapist Assistant Continuum of Learning



The work of the partnership was also informed by the National Study on Excellence and Innovation in Physical Therapist Education, a Carnegie-like study funded by APTA, ACAPT, the Academy of Education, and the Academy of Orthopaedic Physical Therapy. Other influencers included references within and outside of the profession, such as nursing, medicine, pharmacy, and occupational therapy. This was especially true in the partnership's work related to holistic review in admissions and competency-based education.

National Study on Excellence and Innovation in Physical Therapist Education

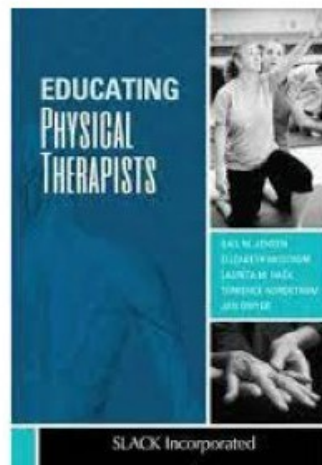
Original Research

National Study of Excellence and Innovation in Physical Therapist Education: Part 1—Design, Method, and Results
 Gal M. Jensen, Terence Nordstrom, Elizabeth Mastrom, Laurita M. Hack, Janet Goyser

Perspective

National Study of Excellence and Innovation in Physical Therapist Education: Part 2—A Call to Reform
 Gal M. Jensen, Laurita M. Hack, Terence Nordstrom, Janet Goyser, Elizabeth Mastrom

This perspective shares recommendations that draw from (1) the National Study of Excellence and Innovation in Physical Therapist Education research findings and a conceptual model of excellence in physical therapist education, (2) the Carnegie Foundation's Preparation for the Professions Program (PPFP) and (3) research in the learning sciences. The 30 recommendations are linked to the components described in the conceptual model for...



To bring together the different areas of analysis and exploration in a culminating strategy, the firm McKinley Advisors was engaged in 2020 to facilitate the work of the partners on the education strategic plan. Results from this work facilitated by McKinley are described under "Education Strategy and Approach to Work" beginning on Page 10 of this report.

Education Strategy and Approach to Work

In 2020, the partners culminated several years of strategic data collection with a report from McKinley Advisors, which analyzed the data and presented findings that the partners used to develop a long-term education strategy for the physical therapy profession.

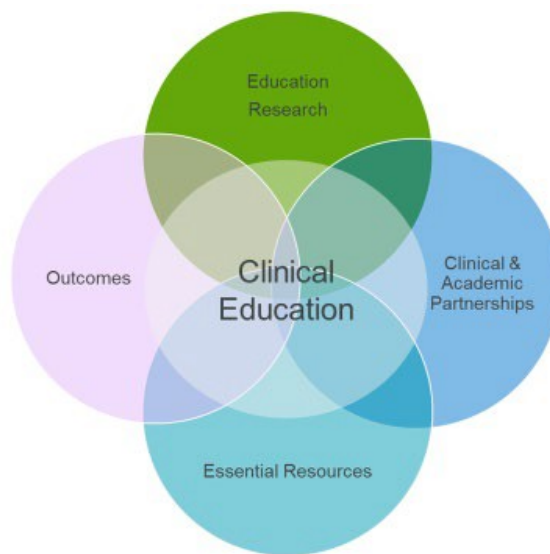
The partners' overall education strategy for their work has comprised four strategy categories — Education Research, Outcomes, Essential Resources, and Academic-Clinical Partnerships — which were represented by strategy groups that met during the data collection period. Summaries of the recommendations within each strategy group begin on Page 11.

In addition, a separate Student Debt Task Force was dedicated to addressing debt from student loans related to physical therapy education.

The intent of these strategy groups was to identify, discuss, and prioritize related work that would help the profession develop a long-term education strategy. Given work volume and budgetary constraints, the partners intentionally chose a phased approach to move the strategies forward. To this end, the strategy groups met at staggered times since their formation:

- The Education Research strategy group met in 2017.
- The Outcomes and Essential Resources strategy groups met in 2019.
- The strategic meeting specific to Academic-Clinical Partnerships occurred in 2020.

A Clinical Education Strategy Group was charged in 2018 to develop a series of prioritized recommendations that should be considered. Those recommendations were developed, and in 2019 the work related to them was incorporated into the four strategic planning groups so that the recommendations would not be seen as separate from the strategy work or a siloed perspective. That work is summarized within the descriptions of each strategy group, and a summary of the Clinical Education Strategy Group is below.



Clinical Education Strategy

Co-chairs: Donna Applebaum, PT, DPT, MS; Anne Reicherter, PT, DPT, PhD

Meeting: Oct. 28-29, 2018

Purpose: Building upon previous work, collectively develop short and long-term clinical education key challenges and action plans in four preidentified focus areas: Outcomes-Resources-Partnerships-Research; and address physical therapy clinical education along the continuum of learning, with an emphasis on entry into practice.

Participants: 30 academic and clinical stakeholders, PT and PTA representation with national urban and rural presence, APTA staff, and facilitator Angela Rosenberg.

Objectives:

- Identify key issues related to advancement of clinical education
- Prioritize issues, using framework provided
- Produce a minimum of two foundational, actionable strategic objectives.

Education Research Strategy

Chair: Gail Jensen, PT, PhD, FAPTA

Meeting: Jan. 29-30, 2017

Purpose: To identify priorities and next steps to embed education research within physical therapy through a focused review of conceptual frameworks and competencies, developing a community of education researchers, identifying and using data to drive decision making and research, and funding and infrastructure required for education research efforts to be successful.

Participants: 24 stakeholders representing the partnership, education researchers, Foundation for Physical Therapy Research staff, and APTA staff.

Objectives:

- Identify conceptual frameworks, competencies, and a research agenda to guide education research efforts.
- Identify opportunities to build a community of education researchers.
- Identify opportunities to leverage big data and data analytics.
- Identify funding and infrastructure needs to support education research.

The Education Research Strategy group met initially in January 2017. Participants determined areas of pursuit that ultimately became: (1) conceptual frameworks and competencies; (2) community of education researchers; (3) big data and analytics; and (4) funding and funding infrastructure. The participants also recommended that a conceptual framework to guide education research be developed, and that a set of physical therapy-specific entrustable professional activities be developed to guide professional and post-professional development.

Conceptual Framework, Competencies, and Research Agenda

Since 2017, the partners have been developing a conceptual framework for physical therapy education research. That framework has five parts: (1) description of education research; (2) identified education research priorities for the profession; (3) a model of excellence in physical therapy education; (4) common guidelines for education research; and (5) distinctions between theory, theoretical framework, and conceptual framework.

Description of education research. The partnership adopted the following [description of education research](#) from the American Education Research Association:

Education research is the scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shape educational outcomes. Scholarship in the field seeks to describe, understand, and explain how learning takes place throughout a person's life and how formal and informal contexts of education affect all forms of learning. Education research embraces the full spectrum of rigorous methods appropriate to the questions being asked and also drives the development of new tools and methods.

Education research priorities for the profession, a model of excellence in physical therapy education, and common guidelines for education research. The partnership endorsed both the Model of Excellence for Physical Therapist Education outlined in Jensen and colleagues' "[National Study of Excellence and Innovation in Physical Therapist Education: Part 2 — a Call to Reform,](#)" published in the September 2017 issue of PTJ (see the "Map of Recommendations to the Action Items" table below), and the [Common Guidelines for Education Research and Development](#) as elements of the conceptual framework for education research.

The partners determined that developing a new education research agenda would be redundant to the work by Jensen et al. They agreed to adopt the nine actions and 30 recommendations from the National Study on Excellence and Innovation in Physical Therapist Education as the framework for a research agenda. It was suggested that education researchers attempt to map their work to the associated recommendations and action items identified below, as published in PTJ's September 2017 article, and to consider the common guidelines outlined in the report from the USDE and NSF.

Map of Recommendations to the Action Items (Source: "National Study of Excellence and Innovation in Physical Therapist Education, Part 2." PTJ, September 2017.)

ACTION ITEMS	RECOMMENDATIONS
<p>1. Address the shortage of qualified faculty and of academic leadership</p>	<p>Recommendation 1: Cultivate shared values of excellence, trust, respect, and collaboration. Recommendation 5: Develop shared leadership models that facilitate innovation and excellence. Recommendation 6: Foster innovation and risk taking to drive the shared vision.</p>
<p>2. Create strong, equal academic-practice partnerships that foster excellence</p>	<p>Recommendation 7: Build fair, creative, and responsible partnerships between academic and clinical faculty. Recommendation 8: Make clinical faculty full partners with the academic program. Recommendation 10: Require early authentic clinical experiences that provide for teaching and learning in the context of practice.</p>
<p>3. Infuse the learning sciences into the preparation of academic, clinical, residency, and fellowship faculty</p>	<p>Recommendation 12: Implement faculty development programs grounded in the learning sciences that facilitate an understanding of, and competence in, the pedagogy of learning for and through practice. Recommendation 13: Create learning environments in academic and clinical settings that provide opportunities for situated learning experiences that are intentional, sequenced, and occur frequently across the curriculum. Recommendation 16: Foster opportunities for physical therapist educational researchers to generate an evidence-based approach to teaching and learning.</p>
<p>4. Develop a continuum of professional performance expectations that are grounded in key competencies and support excellence in learner development</p>	<p>Recommendation 14: Require academic programs to participate in residency education to enable reciprocal teaching and learning between professional and postprofessional learners in communities of practice. Recommendation 15: Establish a comprehensive, longitudinal approach for standardization of performance-based learning outcomes grounded in foundational domains of professional competence. Recommendation 25: Create a national data set that includes essential metrics of performance outcomes, structures, and processes to guide future evidence-based change.</p>
<p>5. Focus curriculum content on societal needs for physical therapist practice</p>	<p>Recommendation 2: Demonstrate learner-centered teaching and patient-centered care in all settings. Recommendation 9: Make the profession's signature pedagogy, the human body as teacher, visible in all environments and available for further investigation. Recommendation 11: Develop consistent, shared language about the multifactorial movement system that can be used across academic and clinical settings. Recommendation 17: Develop a comprehensive, longitudinal</p>

	<p>approach to teaching, learning and assessment of clinical reasoning abilities.</p>
<p>6. Devote significant resources to enhance the diversity in the profession</p>	<p>Recommendation 22: Academic institutions must take a leadership role to create more diverse and inclusive learning and practice environments in order for the profession to have a positive impact on addressing the social determinants of health.</p>
<p>7. Educate students to become moral agents as health care practitioners</p>	<p>Recommendation 18: Develop a strong sense of the moral foundations that underpin and are inseparable from practice in all physical therapists so that they develop the moral courage and ability to meet patients' needs. There must be faculty who have expertise in the moral foundations of practice and who collaborate with other faculty members to integrate the moral foundation of practice into learning throughout the curriculum.</p> <p>Recommendation 19: Prepare learners who act as moral agents and exhibit moral courage in addressing substandard practices.</p> <p>Recommendation 20: Act on our individual and collective responsibilities to society, or we jeopardize our status as a profession.</p> <p>Recommendation 21: Recognize the unique responsibility as academic programs to partner with the community in developing and implementing programs that place positive health outcomes to the community as their primary focus.</p>
<p>8. Achieve control of fiscal resources for physical therapist education</p>	<p>Recommendation 3: Develop leaders who can leverage resources to succeed in a rapidly changing health care system.</p> <p>Recommendation 4: Develop strong leaders with a compelling vision.</p> <p>Recommendation 23: Focus attention across the profession on improved graduates' outcomes, the need to reduce the cost of education to students and society, and the acquisition of resources to support physical therapist education.</p> <p>Recommendation 24: Stop expending resources to identify a narrow set of specific academic organizational structures or curricular models for physical therapist education; expend resources to identify the best way to achieve excellence reflected in the findings of this study and recommendations.</p> <p>Recommendation 26: Assure that academic programs have control of their financial resources, and that they develop economic models for revenue generation through multiple means, and move toward larger programs as one means to increase the range and depth of faculty expertise and other necessary resources.</p> <p>Recommendation 27: Develop strategies so that academic programs become respected, valued partners within their organizations and have influence over their resources.</p>
<p>9. Take decisive action to demonstrate and increase the value of clinical education in the profession</p>	<p>Recommendation 28: Use reasonable productivity standards in clinical education sites that recognize the contribution of the CI/student team to patient care with analysis over relatively longer time frames.</p> <p>Recommendation 29: Include professional and postprofessional education in the missions of clinical education sites. All clinicians at clinical education sites should contribute to clinical education.</p> <p>Recommendation 30: Clearly articulate the financial and other benefits from clinical education.</p>

Distinctions between theory, theoretical framework, and conceptual framework. The partners added a reference by [Varpio, Paradis, Uijtdehaage, and Young](#) (Figure 1 in "Distinctions Between Theory, Theoretical

[Framework, and Conceptual Framework,” Academic Medicine, July 2020](#)), that identifies distinctions between theory, theoretical framework, and conceptual framework as the fifth component of the recommended conceptual framework that education researchers may want to consider as they plan and engage in their scholarly works.

Publications, conference presentations, webinars, focus groups, and open forums in 2018 were used to disseminate information and gather feedback.

Community of Education Researchers

To develop educational research literacy and build a community of education research scholars, the Education Research Strategy Meeting participants recommended three strategies: (A) utilization of the [Medical Education Research Certificate](#) program offered by the American Association of Medical Colleges; (B) development of a Grant writing and Mentoring in Education Research program — known as [GAMER](#) — and modeled on the successful Training in Grantsmanship for Rehabilitation Research model; and (C) development of an [Education Research Network](#).

MERC Workshops

- In 2017, two MERC workshops were offered at the Education Leadership Conference, with 50 attendees per workshop.
- In 2018, two MERC workshops were offered at Combined Sections Meeting, with 50 attendees per workshop, and two additional workshops offered at ELC with 44 attendees per workshop.
- In 2019, two MERC workshops were again offered at both CSM with a total of 33 attendees. One workshop was offered at ELC with a total of 21 attendees.
- In 2020, two MERC workshops were held at CSM, but were cancelled at ELC due to the virtual format. Data to assess outcomes of the MERC workshops was gathered in 2020 and used to determine future MERC workshop offerings.
- In 2021, two MERC workshops were held virtually in June, with seven attendees at one session and 10 at the other. The decision was made to no longer offer MERC workshops at CSM and ELC at this time. Those working on a MERC certification can continue work with AAMC directly.

GAMER

- In 2018, 10 individuals participated in the inaugural GAMER workshop as the four-day kickoff to this new initiative.
- The second GAMER workshop in Fall 2019 included nine participants.
- In June 2019, the partnership approved development of a plan by the GAMER Committee that could include international participation with the expectation that costs for international participants who were not members of any partnering organization would not be subsidized by the partners.
- The cost to participate in GAMER for members of APTA, ACAPT, or APTE was \$2,000 in 2018 and 2019. The partnership subsidized approximately an additional \$3,000 per participant to cover program costs.
- To provide preliminary data on the outcomes of this initiative, GAMER participants from 2018, 2019, and 2021 were surveyed at the end of each workshop to inform the ideal workshop framework. Enhancements were made based on feedback from the first two cohorts. In 2021, all GAMER participants have been asked provide information that demonstrates outcomes of participating in the workshop, such as publications, grant submissions, and funded grants. The partnership will consider those outcomes in its decision making about future offerings.
- Mini-GAMER: At the Education Leadership Meeting in October 2019, a one-day preconference course titled “Education Research: How to Begin Your Journey” (dubbed Mini-GAMER) was supported by the

Partnership. This course required an application process and filled its maximum enrollment of 20 participants. Although not required, for many participants this course serves as a precursor to GAMER.

- The 2020 GAMER workshop was deferred due to pandemic. However, a Mini-GAMER session was held at ELC in 2020.
- In 2021, 10 individuals participated in a GAMER workshop that was held virtually in June, and a Mini-GAMER workshop was held virtually during APTA CSM.

Education Research Network

- The Education Research Network initiative was launched with both mentored networking meetings for individuals interested or engaged in education research and establishment of a mentorship database to link education research mentors with individuals interested in mentorship. Network breakfasts with focused roundtable discussions were held at CSM and ELC in 2018 with approximately 120 individuals attending one or both.
- Networking roundtables were held at CSM 2019 in collaboration with the Academy of Physical Therapy Education's Scholarship of Education Special Interest Group, with approximately 39 attendees. ELC 2019 used a reception format that anecdotally was not as positively received than the roundtables.
- At the end of 2019, 21 mentors or mentees had registered for the Education Research Network Mentorship Program. Since initiation of the network, 62 people have signed up to be mentored, and there are 23 mentors.
- At the request of roundtable participants, a listserv to connect network participants was set up. As of July 2021, there were 170 registered users of the listserv.

Big Data and Data Analytics

One of the charges accepted by the Partnership was that a comprehensive and progressive data management system for physical therapist education be established, and that clinical education be incorporated into the education data management systems.

- Phase I of the development of a data catalog was initiated and includes data from a number of sources, including the American Board of Physical Therapy Specialties, American Board of Physical Therapy Residency and Fellowship Education, APTA Learning Center, APTA member database, Commission on Accreditation of Physical Therapy Education, APTA Credentialed Clinical Instructor Program, PTA Advanced Proficiency Pathways program, central application systems for PT, PTA, and residency/fellowship programs, PTJ — Physical Therapy and Rehabilitation Journal, APTA Fellowship in Education Leadership, APTA Clinical Performance Instrument, and APTA's online clinical site information form. Plans for data change/upgrade, accessibility to researchers, data available to researchers, process for accessing available data is in progress.
- Consideration is being given to a common mechanism through which past conference abstracts for poster and platform presentations can be accessed. Currently, the past 10 years of NEXT abstracts are available through APTA's journal Physical Therapy at Annual Conference Abstracts; recent Education Leadership Conference abstracts are available for the last five years; Combined Sections Meeting abstracts may be available through section/academy websites or their journals.

Funding and Funding Infrastructure

Develop a prioritized research agenda with identified mechanisms for research funding and support.

- Existing funding opportunities within the Foundation for Physical Therapy Research were identified, including Promotion of Doctoral Studies (PODS I and II). Funds within the Foundation that support education research were identified, including the Bella May Scholarship Fund, the Mildred L. Wood Endowment Fund, and the Education Endowment Fund from the Academy of Physical Therapy Education.
- The APTA Academy of Education enhanced its grant program within the section, in addition to its support for funds within the Foundation. The Academy's Research Committee promotes scholarly activities and access to research resources that facilitate evidence-based educational strategies. Activities include review of Research Grant applications as well as assisting with review of platform and poster proposals for CSM and ELC.

Clinical Education Strategy Within Education Research

- Clinical education research questions from the Outcomes Strategy Group will be coordinated with other research initiatives that inform how to move forward.
- A need for data on clinical education capacity (supply/demand) was considered with respect to how it may inform placement process recommendations.
- Education researchers should follow the [Common Guidelines for Education Research and Development](#) developed by the U.S. Department of Education and the National Science Foundation in 2013.

Outcomes Strategy

Co-Chairs: Jean Fitzpatrick Timmerberg, PT, PhD, MHS; Sandy Brooks

Meeting: April 14-15, 2019

Purpose: To determine the framework(s) that could be utilized to define outcomes for learners essential to develop PTs who will meet societal needs; and to plan the continued work that will be necessary to determine what we need to achieve the desired outcomes, and how we will know if they have been attained.

Participants: 23 physical therapists plus APTA staff

Facilitator: Carrie Chen, MD, PhD; Associate Dean of Assessment and Educational Scholarship, Professor of Pediatrics, Georgetown University School of Medicine

Objectives:

- To discuss various frameworks and come to consensus on one that could be utilized for defining outcomes for PT.
- To come to consensus on outcome points across the continuum of learning (benchmark points).
- To develop a list of next steps necessary (this includes research questions) to continue the work on outcomes of learners.
- To identify prospective action items as well as individuals/groups that would be most helpful in assisting.

The Outcomes Strategy Group first met in April 2019, tasked with identifying ideal competency frameworks to meet the needs of the physical therapy profession and identifying outcome competency expectations of graduates entering clinical practice. The group determined that the work fell into three categories:

1. Domains of competence.
2. Entrustable professional activities.
3. Research.

Volunteer panels were established for each category to continue the efforts.

In 2020, a Reactor Panel was established to provide feedback on the work by the volunteer panels. Reactor Panel participants were selected to ensure feedback from key stakeholders who would be involved in or affected by entrustable professional activities associated with competency-based education across the continuum of physical therapy education, including continued professional development.

Introductory materials were posted for the Reactor Panel in November, and two virtual meetings were conducted in December.

Following is a summary of the work of the volunteer reactor panels for the four categories:

1. Domains of Competence

Domains of competence are statements of the complex knowledge, skills, attitudes, behaviors, and values applied to specific situations. In aggregate they constitute a general description framework for the profession. The Competency Profile for Physiotherapists in Canada was used as the primary model, with some modifications to align with physical therapy in the United States.

- The Domains of Competence Panel in 2020 developed a draft of 77 competencies deemed essential for physical therapists entering clinical practice regardless of setting. The competencies were organized into seven domains.
- Work was presented to the 146 member Reactor Panel in 2021 for feedback. These panelists represent broad education stakeholder groups within the profession, as well as backgrounds in the application of competence-based education in other health professions, such as medicine and pharmacy.

2. Entrustable Professional Activities

Entrustable professional activities are observable and measurable concrete clinical activities that represent the day-to-day work of a professional that require proficiency in multiple competencies. They represent what every physical therapist entering clinical practice should be able to do. They should be executable within a given time frame, and completion of the activity leads to a recognized outcome. These professional practice activities can be “entrusted to a sufficiently competent learner or professional.” From a preliminary list of 36 entrustable professional activities that the strategy meeting participants developed, the Entrustable Professional Activities Panel would draft 10-12 EPAs, map each EPA to the competencies critical to performance of that EPA, and describe the EPA and the expected behaviors and clinical vignettes for it.

In 2020, the EPA Panel expanded to include representatives from residency education and continued professional development:

- Panel members worked toward consensus on the points along the learner continuum where EPAs would be developed, and provided support for development of those EPAs.
- Ten EPA Panel members attended the course “The Ins and Outs of Entrustable Professional Activities” to gain insight on developing EPAs and a curriculum that uses them.
- Participants were prepared for curriculum development, teaching, and assessment with EPAs, and for the planning and execution of faculty modules.
- EPA Panel members identified the need for upcoming work to identify the necessary data to be collected during the pilot of a competency-based education program using EPAs, working collaboratively with the research panel.

3. Research

The purpose of the Research Panel is to leverage the recommendations and work from the meetings of the Education Research, Clinical Education, and Outcomes Strategy Groups to develop a research agenda for competency-based education in physical therapy, using the [National Study on Innovation and Excellence in Physical Therapy Education](#) as the foundation of the research agenda.

In 2020, a research agenda was developed and presented to two focus groups that consisted of individuals with educational research experience. Research Panel members identified the need for upcoming work to identify the necessary data to be collected during the pilot of a competency-based education program using EPAs, working collaboratively with the EPA Panel.

Clinical Education Strategy Within Outcomes

The focus was on student learner outcomes, and the following recommendations were proposed:

- Development of consensus on outcomes for the following: students, educators, and environment.
- Development of assessment tool(s) to determine if the learner/educator/facility/program has achieved the desired outcomes.
- A near-future focus on student assessment and assessment tools to bridge gaps.

Essential Resources Strategy

Co-Chairs: Lisa Saladin PT, PhD, FAPTA; Deb Larsen, PT, PhD, FAPTA

Meeting: Sept. 27-28, 2019

Purpose: To identify essential resources necessary to initiate and sustain quality entry-level physical therapist education programs now and in the future to inform the ELP strategic planning process.

Participants: 35 participants, including program directors, deans, VPs student affairs and finance, faculty, DCEs, SCCEs, and CIs (large and small universities).

Objectives:

- Identify the current state of essential resources in each area (i.e., sufficient numbers, sufficient quality or qualification, any standardization, and/or major concerns).
- Identify what is optimal and what are the current deficiencies (i.e., the gaps) in order to initiate or sustain a high-quality physical therapy education program.
- What action steps can be recommended to close those gaps between current state and what is optimal?

The Essential Resources Strategy group met in September 2019, per the staggered schedule of the four strategy categories. The group's purpose was to identify essential resources necessary to initiate and sustain quality entry-level physical therapist education programs now and in the future to inform the partners' strategic planning process. To that end, the meeting's objectives were:

1. Identify the current state of essential resources in each area (e.g., sufficient numbers and quality or qualification, any standardization, major concerns).
2. Identify what is optimal and what are the current deficiencies (i.e., the gaps) in order to initiate or sustain a high-quality physical therapy education program.
3. Identify action steps that can be recommended in order to close those gaps.

Attendees were divided into four topic groups: (1) faculty, program directors, and curriculum; (2) clinical education, directors of clinical education, and site coordinators of clinical education; (3) finances, facilities, and research; and (4) student services.

The groups identified: (1) challenges; (2) potential evidence for best practices or other data to address these challenges; (3) action items or resources to be developed; (4) an estimated timeline for completion of action items; (5) anticipated outcomes for action items; and (6) a means of measuring progress or success of action items.

At the end of the meeting the entire group prioritized each small group's action items to forward to the steering committee as those recommended to address first. Following is a summary of the top three action items per group.

Group 1: Program Director, Faculty, and Curriculum

1. Creation of focused modules for "just in time" learning.
2. Study current models of DPT education (4+3, 3+3, freshman-entry, weekend, distance) and impact on student debt and return on investment.
3. Expand opportunities for DPT to terminal academic degree (PhD, EdD, etc.); may include dual-degree programs.

Group 2: Site Coordinator of Clinical Education, Director of Clinical Education and Clinical Sites

1. Determine aspects of clinical education curriculum that can be standardized across didactic and clinical content components in order to increase quality and efficiency. Aspects that can be standardized include:
 - Types and length of experiences.
 - Terminology and naming conventions of clinical experiences.
 - Clinical education course credit hours.
 - Student readiness assessment tools and entrustable professional activities as recommended during previous strategy meetings.
2. Explore alternatives to traditional clinical education experiences such as:
 - Interprofessional experiences.
 - Telehealth.
 - Simulation and/or standardized patients.
 - Pro bono clinics.
 - Other innovative models such as virtual reality or immersion experiences.
3. Define the attributes of a value-based, quality academic-clinical partnership supported by data and best evidence, including:
 - Study of the current role of SCCE.
 - Needs of current clinical sites.
 - Assessment process of clinical partnership.
 - Incentives to reach sites not currently engage.

Group 3: Finance, Facilities and Research Supports

1. Collect data annually – salaries/rank, equipment (purchasing, maintenance, replacement), facilities, IT/technology, faculty development/travel, student support (support services, scholarships).
2. Create and implement CAPTE standard that requires any institution that has a PT program to have an office or other central unit for research support (institutional review board, grants management).

3. Collect data via annual survey on entering student debt and debt specific to DPT education; look at graduate income/debt ratio.

Group 4: Student Affairs Supports

1. Develop relationships for information sharing/education with professionals in student affairs/student affairs organizations. Consider recommendation that CAPTE add a standard relative to student affairs.
2. Need data analysis of current status:
 - Financial aid.
 - Accommodations.
 - Faculty skill and comfort on student supports.
3. Report /summaries of best practices perspectives on inclusivity that uses existing evidence to create recommendations/guidelines/summaries of action.

Clinical Education Strategy Within Essential Resources

- Findings from the Clinical Education Strategy Group and Essential Resources Strategy Group were filtered to inform the work of the Academic-Clinical Partnerships Strategy Group.
- The need for a framework for a “one-stop shop” knowledge management system was proposed and moved to the Education Research Strategy Group.
- Related to marketing a clinical education culture, a need was confirmed for formal infrastructure for clinical education administration, with a priority on communication across the entire clinical education community.
 - Conversations began among a national leadership group (PT-PTA).
 - A need was identified for a comprehensive database of directors of clinical education and academic coordinators of clinical education to assist with necessary communication.
 - A need was identified for financial support and resources.
 - A need was identified for a communication plan to disseminate messaging to all education stakeholders.
 - Initial work to describe the current clinical education culture was moved to the Academic-Clinical Partnerships Strategy Group.

Academic-Clinical Partnerships Strategy

Co-Chairs: Christopher Meachem, PT, DPT; Donna Applebaum, PT, DPT

Meeting: March 6-7, 2020

Purpose: Identify work that needs to be done to optimize academic-clinical partnerships for physical therapy education resulting in action plans in four pre-identified focus areas.

Participants: 36, representing clinicians, faculty, administrators, and owners.

Objectives:

- Create recommendations that identify work that needs to be done to optimize academic-clinical partnerships for physical therapy education.
- Recommendations are to be made with consideration of the culture of physical therapy education and change management.

A Clinical Education Strategy Meeting was held in October 2018. Recommendations from this meeting were transferred into subsequent strategy meetings including the Academic-Clinical Partnerships Strategy Meeting held in March 2020.

Following were three recommendations put forward by the Academic-Clinical Partnership Subgroup during the Clinical Education Strategy Meeting in October 2018:

- Define models of quality and effective academic – clinical partnerships.
- Develop a mechanism to hold academic programs accountable for creating partnerships. The entire group voted on all recommendations, and this was one of the least supported recommendations.
- Develop a national clinical education placement management system to be used by partners to maximize the effectiveness of the clinical placement process for both PTs and PTAs.
 - The Placement Process Task Force, a joint effort of ACAPT’s National Consortium of Clinical Educators and the Academy’s Clinical Education Special Interest Group, released its final report in 2020 providing evidence about current placement management and recommendations for future practices.

The March Academic-Clinical Partnerships Planning Group meeting resulted in recommendations to optimize academic-clinical partnerships for physical therapy education:

Subgroup	Recommendations
Characteristics & models of quality and effective academic-clinical partnerships	<ul style="list-style-type: none"> • Reframe overall message regarding clinical-academic partnerships so that clinic is first. • Adopt model for clinical-academic partnerships. • Assess outcomes of model implementation. • Create resources for development and implementation of partnership model. • Identify resources to address regulatory and societal barriers.
Organizational partnerships for PT education	<ul style="list-style-type: none"> • Develop an open network of stakeholders to share knowledge and resources that support the provision of patient-centered care based on foundational qualities and values including: <ul style="list-style-type: none"> ○ Shared vision ○ Not exclusive ○ Equitable benefits ○ Clear roles and responsibilities ○ Collaboration across the education continuum ○ Built of existing networks/partnerships
Entry-level/ professional curriculum	<ul style="list-style-type: none"> • Foster a culture of shared responsibility of best practice in physical therapy education through the establishment of quality standards in the entry level DPT curriculum. • Define outcomes for entrance into the Terminal Clinical Experience(s) for all students no matter what setting. • Explore more standardized educational practices in PT education. • Engage faculty from both academic and clinical settings to work together on clinical courses. • Expand CAPTE definition of “integrated clinical education” to reflect current practice environments.
Postprofessional curriculum	<ul style="list-style-type: none"> • Reimagine the educational model to fulfill professional obligations to society and explore cultural expectation of residency training for a doctoring profession. • Standardize performance-based outcomes across the learning continuum, grounded in domains of professional competence. • Normalize community of practice/ layered learning across learner continuum (fellow, resident, DPT student, etc.) • All professional PT programs collaborate with clinical partners to provide residency/ fellowship education. • All PT programs rethink relationship with clinical partners so that education accelerates the transformation in healthcare delivery needed to fulfill our contract with society.

- All residency/ fellowship programs have core faculty that have the qualifications necessary to oversee and initiate both educational and practice aspects of a program's curriculum.
- Develop and implement optimal collaborative partnerships for practice-based learning, grounded in learning science that is financially responsible for all stakeholders.

Clinical Education Strategy Within Academic-Clinical Partnerships

Academic-clinical partnership is the foundation of clinical education. Excellence in clinical education partnership promotes relationships on individual, organizational, regional, and national levels devoted to collaboration, accountability, capacity, and mutual benefits.

The partners have sought to build a framework for formal partnerships between academic programs and clinical sites that includes infrastructure and capacity building, and defines responsibilities and accountability for each partner, including economic, standardization, and sustainable models.

Summary

The Education Leadership Partnership initiated this collaborative effort in June 2016, focusing on the recommendations from the Excellence in Physical Therapist Education Task Force, and revised its approach to work in 2018 to incorporate additional requests received from APTA's Board of Directors. This included merging the priorities identified by the Excellence in Physical Therapist Education and Best Practices in Physical Therapist Clinical Education task forces, resulting in five areas of review through a series of stakeholder strategy meetings: clinical education, education research, outcomes, essential resources, and academic and clinical partnerships. Additionally, diversity, equity, and inclusion; the cost of education and student debt; and issues of physical therapist assistant education were considered.

Since 2016, the partnership met virtually monthly and, pre-COVID 19, face-to-face at APTA Combined Sections Meeting, NEXT, and the Education Leadership Conference. Strategy meeting work was anchored on findings from the two APTA task force reports, and the 2017 National Study on Excellence and Innovation in Physical Therapist Education published in PTJ, which was cofunded by APTA, APTA Education, ACAPT, Academy of Orthopaedic Physical Therapy, and other resources. The partnership sought stakeholder feedback throughout the process in national presentations, strategy meetings, a national survey of 1301 participants, and a town hall of 286 participants.

The partnership consulted with McKinley Advisors to consolidate the findings from various sources, develop a collaborative framework for the future of physical therapy education (both professional or technical and postprofessional or posttechnical), and to seek broad stakeholder feedback on the proposed framework. Stakeholder feedback provided validity evidence to the recommendations being developed. The consultant's findings were integrated into this report and recommendations.

The partnership chose a visioning document to respond to the APTA Board of Director's charges, modeled after the structure of APTA's Vision 2020. This format was selected due to the long-term commitment and intentional effort required to achieve this vision in the coming decades, the familiarity of this model to many members and other education stakeholders, and the positive experience associated with the success of Vision 2020. The partnership believes that stating the vision for physical therapy education, describing its purpose, and identifying and operationally defining key pillars will allow members and other education stakeholders to appreciate the aims of the vision and allow its priorities and tactics for achieving this vision to evolve in a developmental and collaborative way.

The vision, pillars, and guiding principles are identified and explained in the following section of this report.

Pillars and Guiding Principles Toward Achieving a Vision for Excellence in Physical Therapy Education

Following extensive review and discussion of the findings accumulated during the partners' work, a Vision Sentence and Vision Statement were developed to reflect achievement of excellence in physical therapy education:

Vision Sentence

Advancing excellence in physical therapy education across the learner continuum to meet societal health needs and optimize patient and client outcomes.

Vision Statement

Excellence in the practice of physical therapy requires a well-developed educational framework for physical therapists and physical therapist assistants. That framework must include strong partnerships among education stakeholders for a shared commitment to the development and application of evidence-based approaches in education and practice. The learning continuum begins with exposure to the profession and progresses through entry-level education programs, postprofessional or posttechnical development, and continuing education throughout physical therapists' and physical therapist assistants' careers.

By optimizing movement, physical therapists and physical therapist assistants address challenges that impact the well-being of individuals and communities. We serve as leaders, in collaboration with other health care professionals, to overcome barriers, to increase access to care, and improve health outcomes.

Basic Tenets

These assumptions were integral to developing the pillars and guiding principles.

- **External view:** Education stakeholders include any individual, group, or organization that has a vested interest in physical therapy education. While the clinical and academic missions need to support each other in health professions education, they are in fulfillment of our social contract and the communities we serve.
- **Interdependent bridge:** Education includes both academic and clinical experiences, and is seen as an integrated experience rather than two types of education separated by environment.
- **Learner continuum:** It exists for both the physical therapist and physical therapist assistant and begins with student recruitment and student interest in physical therapy as a career or calling. Learning is lifelong and continues throughout one's career.
- **Integrative whole:** This vision's six pillars are integrated and should not be seen as siloed opportunities for the profession: they are an integrated whole that will foster the profession's ability to achieve its aims.
- **PT-PTA team:** Physical therapist assistants are considered in each pillar as an integral component of physical therapist practice.
- **Diversity, equity, and inclusion:**
 - Diversity is represented in multiple dimensions, recognizing intersectionality among one or more dimensions for individuals.

- Equity is considered in the context of individuals and communities, as well as relationships to health and social justice.
- Inclusion is considered in multiple contexts, including within society, within the profession, and within the association.
- **Workforce:** These issues consider the cost of education, student debt, demographics, payment, and earning potential.
- **Data and decision making:** Data is collected, meaningful, and accessible to education researchers and others to inform decision making.
- **Quality benchmarks:** These include metrics that allow education programs to compare performance in specific domains to those of other programs inside or outside of the profession, including measures of accreditation standards, benchmarking programs, and other resources that facilitate comparison of performance.

The path to achieving the vision for physical therapy education focuses on six pillars:

1. **Accessibility of Education**
2. **Collaboration and Networks**
3. **Competency-Based Education**
4. **Diversity, Equity, and Inclusion**
5. **Education Research and Data Management**
6. **Infrastructure, Capacity, and Faculty Development**

The operational definition of each pillar is followed by guiding principles that are aspirational statements reflecting achievement of the vision in that pillar, and findings from the various resources used.

Accessibility of Education

Operational definition: Physical therapy education is an accessible and financially viable option to individuals interested in pursuing and advancing their career in physical therapy.

Guiding Principles

- **Learners from diverse backgrounds, experiences, and identities are encouraged to enter the profession.**
- **Learners along the continuum will have access to career resources and advising that support an understanding of the full cost and benefits of education.**
- **There is continual advocacy for accessibility of education, sustainable payment, and appropriate compensation levels across the profession.**

Background

The facilitation of conversations by the Education Leadership Partnership among education stakeholders across many key areas to aid in advancing physical therapy led to emergence of a need to gain a broader and deeper understanding of accessibility of education to learners of diverse backgrounds, experiences, and identities. Many factors can impact learners' accessibility across the continuum such as cost of education, financial aid availability, financial literacy, level of physical or mental abilities, compensation, and management of resources. Advocacy in the profession to enhance access to education will ultimately have a strong effect, especially in the areas of equity for rural education, affordability of entry level and continuing education, and sustainable payment. Development of this pillar was informed by:

- [Recommendations of the Student Debt Task Force](#) and APTA's "[Impact of Student Debt on the Physical Therapy Profession](#)" report for increasing student awareness of physical therapy student debt, expected earnings, and financial literacy as well as improving transparency on salaries, publicizing existing financial resources, and educating on employer and federal loan assistance. Additional recommendations were to develop more research specific to student debt and exploring alternate approaches to decrease financial burden.
- Recommendations of the National Study on Excellence and Innovation in Physical Therapist Education for reducing the cost of education to students and society, ensuring that academic programs have influence over their financial resources.
- Recommendations of the [Essential Resources Strategy](#) group for leveraging existing resources for student success; developing relationships to facilitate information-sharing with professionals in student affairs/student affairs organizations; creating a standard relative to student affairs; and analyzing the current state relative to financial aid, accommodations, faculty skill and comfort on student support. (Details on this strategy group's activities are found in the [Background section](#) of this report.)
- McKinley Advisors' review of the data that identified the need to collect benchmarks, identify practices, and define standards to key issues of student affairs and student debt; and to focus on pathway development, student resources, and diversity by defining best practices on inclusivity, demographic studies, cross-cultural training for faculty, career pathways, and student debt resources.
- Review of broad stakeholder quantitative and qualitative feedback received through a national survey and live town hall. Sample survey responses:
 - 93% believe ongoing advocacy for both sustainable reimbursement as well as appropriate compensation levels across the profession is moderately to very important.
 - 94% believe those considering professional/technical (entry-level) physical therapy education will have access to career resources and advising support as well as an understanding of the impact of full cost of that education; financial aid availability; and salary expectations is moderately to very important.
 - 89% believe those considering professional/technical (entry-level) physical therapy education will have an understanding of financial literacy and management of an individual's resources is moderately to very important.

Collaboration and Networks

Operational definition: Effective decision-making and continuous learning are driven by greater connection, knowledge-sharing, and access to information within clinical and academic partnerships and across education stakeholder groups.

Guiding Principles

- **Clinical and academic partnerships support the provision of learning and delivery of person-centered care.**
- **Clinical and academic partners have clear roles and responsibilities, including a shared obligation to learner development that will result in optimal outcomes that ensure learner readiness to meet performance expectations.**
- **Clinical and academic stakeholders in all settings participate in open and inclusive intraprofessional and interprofessional partnerships to leverage communication frameworks that ensure access to supportive infrastructures.**

Background

The Education Leadership Partnership exemplifies collaboration from a variety of education stakeholders — especially the critical partnerships between academic institutions and clinical settings — toward the goal of elevating physical therapy education. Development of this pillar was informed by:

- Prior to the establishment of the partnership, ACAPT convened the Clinical Education Summit in 2014, resulting in the following recommendations: Academic and clinical institutions will partner to provide best practices in clinical education; academic and clinical sites will partner to engage in continual development and support of clinical educators.
- In 2017, the Board of Directors accepted the following recommendation from the Best Practices in Clinical Education Task Force: Development of a framework for formal partnerships between academic programs and clinical sites that includes infrastructure and capacity building, and defines responsibility and accountability for each
- The National Study on Excellence and Innovation in Physical Therapist Education included an action item for academic-practice partnerships that foster excellence. The following recommendations were included in support of this action item: Build fair, creative, and responsible partnerships between academic and clinical faculty; make clinical faculty full partners with the academic program; and require early authentic clinical experiences that provide for teaching and learning in the context of practice.
- The Clinical Education Placement Process Task Force sponsored by ACAPT and the Academy of Education included two recommendations related to collaboration and networks to facilitate placement processes: Leverage relationships between/among clinical and academic programs as well as regional and/or national structures to improve communications, coordination and access to quality clinical education experiences; investigate the use of a common technological platform to manage data related to clinical education experience placements.
- Outputs from the [Education Research, Outcomes, Essential Resources](#), and [Academic-Clinical Partnerships](#) Strategy group meetings generated networking opportunities and called for improved collaborations to improve excellence in physical therapy education (Details on each strategy group's activities are found in the Background section of this report.)
- Review of broad stakeholder quantitative and qualitative feedback received through a national survey and live town hall. Sample of survey responses:
 - 96% believe that clinical and academic partnerships support the provision of learning and delivery of patient/client centered care as moderately to very important.
 - 95% believe that clinical and academic partners have clear roles and responsibilities, including a shared obligation to learner development that will result in optimal outcomes to ensure learner readiness to meet performance as moderately to very important.
 - 89% believe that clinical and academic stakeholders in all settings participate in open and inclusive partnerships that leverage communication structures to ensure access to adequate and appropriate infrastructure as moderately to very important.

Competency-Based Education

Operational definition: Individuals are assessed on an evidence-based, consensus-driven set of learner performance outcomes over time, and progress along the learner continuum when competence is demonstrated.

Guiding Principles

- There is a defined set of standard performance outcomes for learners across the learner continuum in physical therapy education.
- Education research is used to inform the competency-based education approach in physical therapy.
- Physical therapists and physical therapist assistants demonstrate continuing competence, ensuring consistency in practice.

Background

Since 2016, the Education Leadership Partnership has been facilitating a conversation among education stakeholders on the opportunity to move the profession to a competency-based education approach of learner assessment in physical therapy. Competency-based education is a philosophy, a mindset, and a framework for learner assessment, spanning the learner continuum, in which a learner demonstrates competence in a set of standard defined performance outcomes before moving to the next level. Development of this pillar was informed by:

- Recommendations of the APTA Excellence in Physical Therapy Education Task Force and the APTA Best Practices in Physical Therapy Clinical Education Task Force for adoption of a set of minimum outcome competencies and a system of standardized tools for performance-based assessment.
- Recommendations of the National Study on Excellence and Innovation in Physical Therapist Education for standardization of performance-based learning outcomes grounded in foundational domains of professional competence.
- Outputs from the [Education Research](#), [Clinical Education](#), and [Outcomes](#) Strategy groups that investigated opportunities to move toward a competency-based education approach, including creation of four panels (Domains of Competence, Entrustable Professional Activities, Research, and Reactor) to facilitate early investigatory work. (Details on each strategy group's activities are found in the [Background section](#) of this report.)
- Review of broad stakeholder quantitative and qualitative feedback received through a national survey and live town hall. Sample of survey responses:
 - 94% believe a defined set of standard performance outcomes is moderately to very important.
 - 91% believe education research to inform competency-based education is moderately to very important.
 - 87% agree that learners' progression only after competency is demonstrated is moderately to very important.

Diversity, Equity, and Inclusion

Operational definition: Physical therapy education is equitable, inclusive, and welcoming to individuals interested in pursuing and advancing a career in the profession, so that learners, educators, and leaders reflect the many dimensions of individual differences represented in communities and society.

Guiding Principles

- **There is shared commitment to advancing DEI across the physical therapy learner continuum as evidenced by intentional recruitment, inclusive admissions processes and retention strategies, and support for ongoing education and success for a diverse group of learners.**
- **Clinicians, students, and programs participate in career pathway development, by focusing on underserved, underrepresented, and marginalized populations.**
- **Academic and clinical educators actively support inclusive environments in their programming through an understanding of the benefits of cultural humility and a diverse team, as well as of the barriers created by overt and implicit bias.**

Background

In 2019 the Education Leadership Partnership agreed to add the topic of diversity, equity, and inclusion as a shared partner interest. The topic was of significant interest to APTA and the profession, with renewed commitment to advancing DEI in education, research, and practice. The partnership considered recommendations of the APTA Diversity, Equity, and Inclusion Staff Work Group, development of an ACAPT DEI Consortium, development of an ACAPT DEI Commission, shared support of the founding partners with the Physical Therapy Learning Institute as cosponsors, along with the American Academy of Physical Therapy and the National Association of Black Physical Therapists. Development of this pillar was informed by:

- Recommendations of the Excellence in Physical Therapy Education Task Force for the adoption of a standardized performance-based assessment that measures student outcomes and established benchmarks be developed and promoted (admissions focus).
- Recommendation of the National Study on Excellence and Innovation in Physical Therapist Education to devote significant resources to enhance the diversity in the profession by academic institutions taking a leadership role to create more diverse and inclusive learning and practice environments in order for the profession to have a positive impact on addressing the social determinants of health.
- Outputs from Education Leadership Partnership events that investigated opportunities to move toward a competency-based education approach, including publication of an article, multiple conference presentations, meetings with the [Education Research](#), [Clinical Education](#), and [Outcomes](#) Strategy groups, and development of four panels (Domains of Competence, Entrustable Professional Activities, Research, Reactor) to facilitate early investigatory work. (Details on each strategy group's activities are found in the [Background section](#) of this report.)
- Recommendations presented in the Lynda D. Woodruff Lectures on Diversity, Equity, and Inclusion in Physical Therapy provided by [Greg Hicks, PT, PhD, FAPTA, in 2020](#) and [in 2021 by Charlene Portee, PT, PhD](#).
- Recommendations of the June 2020 APTA report "Impact of Student Debt on the Physical Therapy Profession" to expand scholarships to qualified therapy students who are from underrepresented backgrounds, improve students' financial literacy, and more broadly publicize alternatives to student loans.
- Review of broad stakeholder quantitative and qualitative feedback received through a national survey and live town hall. Sample of survey responses:
 - 87% believe active support from academic and clinical educators for inclusive environments in their programming, through facilitation of an understanding of the benefits of a diverse team and of barriers created by overt and implicit biases, is moderately to very important.
 - 88% believe diversity in physical therapy education that reflects the many dimensions of individual differences represented in communities and society is moderately to very important.
 - 84% believe a shared commitment to advance DEI across the physical therapy learner continuum, as evidenced by targeted recruitment strategies, increased accessibility of the

- admissions/application processes, and financial structures to support professional education for diverse individuals, is moderately to very important.
- 84% believe participation by educators and faculty, and education programs and clinical sites, in pathway development, by increasing awareness of physical therapy as a career option with particular focus on the unique recruitment needs of those from underserved, underrepresented and marginalized populations, is moderately to very important.
- 82% believe that DEI-related education research and data analytics that inform best practices in physical therapy education are moderately to very important.

Education Research and Data Management

Operational definition: Use of education research, data, and data analytics drive decision-making to identify processes that promote learner development and outcomes to meet the needs of society.

Guiding Principles

- **Researchers explore, identify, and benchmark key workforce and programmatic issues.**
- **Readily accessible data and research findings will facilitate further education research across the learner continuum to inform best practices.**
- **Research and data analytics related to diversity, equity, and inclusion inform best practices in physical therapy education across a broad community of learners.**
- **An engaged community of researchers across settings collaborates and shares knowledge that advances education and practice in physical therapy.**
- **An engaged community of researchers offers professional support for education stakeholders through training, career resources, grant-writing support, mentorship, and more.**

Background

Since the formation of the Partnership, education research has been at the center of the conversation; the first meeting of the Education Research Strategy Group in January 2017 became the structural model for meetings of the other strategy groups. Work in this area has continued across four primary areas, as outlined earlier in this report. The partnership adopted a recommended framework for education research in physical therapy that includes: a standard definition of education research, a set of education research priorities, common guidelines for education research, a model of excellence in physical therapist education, and a perspective on differentiating theory, theoretical frameworks and conceptual frameworks.

Need exists for data and data analytics across a variety of areas in physical therapy that relate to education across the learner continuum. Exploration and benchmarking of key workforce issues will inform decision-making related to program issues and costs; student debt; enrollment; diversity, equity and inclusion; and workforce demographics, among others. A comprehensive collection of data that is accessible to researchers for analysis will facilitate further research to inform education. Enhanced knowledge sharing on key areas, such as learner outcomes, clinical education outcomes, programs resources and student support, and physical therapist and physical therapist assistant competency outcomes across the learner continuum, will facilitate innovation in education and practice. Key information and data will be communicated to education stakeholders, as well as the general public and other relevant external groups, to promote data-driven decision making and improved individual and community outcomes. Development of this pillar was informed by:

- Recommendations of the APTA Excellence in Physical Therapy Education Task Force for a comprehensive and progressive data management system for physical therapist education that is

accessible to stakeholders, inclusive of multiple elements, and used to drive decision making and evidence-based teaching.

- Recommendations of the APTA Best Practices in Physical Therapy Clinical Education Task Force for a prioritized education research agenda including clinical education research.
- Recommendations of the National Study on Excellence and Innovation in Physical Therapist Education for education researchers to generate evidence-based approaches to teaching and learning.
- Outputs from the [Education Research](#), Clinical Education, [Outcomes](#), and [Essential Resources](#) Strategy groups that investigated opportunities for development of: a conceptual framework for education research; a prioritized education research agenda; a comprehensive data management systems; and a community of education researchers. (Details on each strategy group's activities are found in the [Background section](#) of this report.)
- Review of broad stakeholder quantitative and qualitative feedback received through a national survey and live town hall. Sample of survey responses:
 - 90% believe that an engaged community of education researchers that collaborates and shares knowledge that advances education research in physical therapy is moderately to very important.
 - 87% believe that an engaged community of education researchers that offers professional support through training, career resources, grant writing support, mentorship, and more is moderately to very important.
 - 89% believe research to explore, identify, and benchmark key workforce issues is moderately to very important.
 - 88% believe a comprehensive collection of data, and analysis of those data, that will drive decision making and practice in physical therapy education is moderately to very important.
 - 88% believe enhanced knowledge sharing in key areas (learner outcomes, clinical education outcomes, program resources, student support, etc.) is moderately to very important.
 - 83% believe key information and data availability and use to promote data-driven decision making and improve patient care is moderately to very important.

Infrastructure, Capacity, and Faculty Development

Operational definition: Physical therapy education programs along the learning continuum have adequate resources to accomplish education aims.

Guiding Principles

- **Educators continually advance their knowledge, skills and attitudes to deliver evidence-based educational and practice aspects of curricula, and to serve as leaders and mentors.**
- **Learners have access to support and resources that facilitate learning and address their educational needs.**
- **Education programs strive to meet a common set of aspirational benchmarks that ensure delivery of high-quality education to learners.**
- **Education programs individually and collectively produce high-quality research that contributes to the physical therapy profession's body of evidence.**
- **A common placement management system maximizes grassroots partnerships to increase efficiencies in clinical education.**

Background

Infrastructure is broadly defined as the educational system itself, including education programs, clinical education sites, and the resources and systems that support them. Capacity relates to the numbers of educational programs, learners, qualified educators, and clinical sites. Resources needed to support excellence in physical therapy education include finances, facilities, research, equipment, personnel, student support systems, and culture. Development of this pillar was informed by:

- The [Essential Resources Strategy](#) group identification of the following needs:
 - Support for program directors in their roles as leaders, educators in their roles as teachers and scholars, and educational programs in their needs for curricular resources.
 - Development of the clinical education sites, especially support for the leaders in these partnerships (DCE, SCCE), and the operations to support education at the clinical sites, especially the placement system.
 - Sufficient finances and facilities, especially for the support of research.
 - Effective student services, or more generally, support for the needs of the learners.
- The [Education Research Strategy](#) group identification of the need for development of the faculty to conduct high-quality educational research, and the funding and administrative support needed for this to succeed.
- The longstanding recognition that current ranking systems and other metrics of success (e.g., pass rates, employment rates) are not informative. The [Outcomes Strategy](#) group focused on the needs for common benchmarks for performance of learners. Benchmarks are also needed for the education programs.
- Longstanding recognition of the need for a clinical placement system that is effective and efficient.
- Review of broad stakeholder quantitative and qualitative feedback received through a national survey and live town hall. Sample of survey responses:
 - 97% identified faculty development as moderately or very important
 - 96% ranked support systems for the learners as moderately or very important.
 - 92% - 94% favored a common set of benchmarks for various aspects of the educational programs (faculty qualifications and development, learner outcomes, finances and resources)
 - 88% ranked the need for academic programs to produce research as moderately or very important.
 - 67% ranked the need for a common placement management system as moderately or very important, with strong support found in qualitative statements.