SECOND EDITION

Teaching and Learning in Physical Therapy

From Classroom to Clinic

Margaret M. Plack | Maryanne Driscoll

SLACK Incorporated

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Published by: SLACK Incorporated
6900 Grove Road
Thorofare, NJ 08086 USA
Telephone: 856-848-1000
Fax: 856-848-6091
www.Healio.com/books

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Names: Plack, Margaret M., author. | Driscoll, Maryanne, author.
Title: Teaching and learning in physical therapy : from classroom to clinic / Margaret M. Plack, Maryanne Driscoll.
Description: Second edition. | Thorofare, NJ : Slack Incorporated, [2017] | Includes bibliographical references and index.
Identifiers: LCCN 2016055499 (print) | LCCN 2016056009 (ebook) | ISBN 9781630910686 (paperback) | ISBN 9781630910693 (epub) | ISBN 9781630910709 (Web)
Subjects: | MESH: Physical Therapy Modalities--education | Learning | Teaching
Classification: LCC RM706 (print) | LCC RM706 (ebook) | NLM WB 18 | DDC 615.8/2071--dc23
LC record available at https://lccn.loc.gov/2016055499

Dedication

In memory of my best friend from the womb! I have never met a stronger, more kind-hearted woman, mother, daughter, aunt, sister-in-law, sister, and friend! To my twin sister, my soul sister, Kathy, who taught me more than she will ever know.

To my family, particularly my husband and soul mate, Tom, thank you. This would not have happened without all of the love and support that you have shown me throughout the years.

Margaret M. Plack, PT, DPT, EdD

I dedicate this book to my family, immediate and extended, for their love and support. Chuck, Meg, Mike, Chad, and Nicole, educators in their own right, demonstrate daily the importance of being creative and seeking the best way to reach and teach individuals in their charge.

Maryanne Driscoll, PhD

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Acknowledgments

As with the first edition, countless individuals need to be acknowledged for their ongoing role in helping us learn. To the many students, faculty, and clinicians with whom we have interacted, thank you for your insights and for what you have taught us over the years. The teaching-learning experience truly is a two-way street, and at times we wonder if we gain more than we give! It is a true honor and privilege to work with students, faculty, and clinicians who value teaching and learning and view it as integral to the quality of care they provide. To our contributors, we thank you for your insights and for helping us continue to refine our own teaching philosophies.

In this, our second edition, there are 2 additional individuals in particular we would like to acknowledge: Kristen Wolf and Linda Cotton. Kristen is a doctor of physical therapy student at The George Washington University in Washington DC. She has been a dedicated research assistant over the past year, gathering articles, creating annotated bibliographies, referencing chapters, designing figures, and, most importantly, providing some exceptional insight into the process. Linda Cotton is a graphic designer who is a multimedia specialist and member of the health sciences instructional design team at The George Washington University. Linda's keen eye for and skill in designing figures has truly enhanced this edition. The work of these women has been invaluable; they have been perceptive, patient, persistent, and fun individuals with whom to work! To both of you: THANK YOU!

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Maryanne Driscoll, PhD, is an educational psychologist and associate professor in the DPT program at Touro College, New York, NY. Dr. Driscoll received her PhD in educational psychology from Teachers College, Columbia University, NY. She consults with schools and hospitals throughout the metropolitan New York region on effective instruction. With Dr. Plack, she coauthored and taught a course titled "Teaching in Physical Therapy Practice" for 2 post-professional DPT programs, and also teaches similar content in 2 professional DPT programs. Dr. Driscoll has implemented the strategies to be used in this text in a number of teaching and learning venues, including the American Physical Therapy Association's Combined Sections Meetings and Annual Conferences and various other conferences on medical education. She has been involved in ongoing research related to adult learning principles and educational outcomes and has published several manuscripts on topics related to this text.

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Foreword

Have you ever experienced one of the following scenarios?

- You are a faculty member with 15 years of full-time experience in a physical therapist education program, and now must teach in a content area that is outside of your comfort zone. You have spent a great deal of time ensuring the content you intend to present is contemporary and evidence-based, but have spent little time considering how to deliver the material beyond your PowerPoint slides.
- You are a physical therapist with 10 years of clinical experience with some experience as a part-time lab assistant in the local physical therapist education program, and have just accepted a full-time, tenure-eligible academic position in that program. You are not only expected to teach in that course where you were a part-time assistant, but be the primary instructor in 3 other courses. You have questions about how to design and deliver content in those areas.
- You are an experienced physical therapist clinician and just received your board certification as a Geriatric Certified Specialist. You have been asked to provide a lecture and lab to the second year students in the local physical therapist assistant education program on the normal changes in the aging process of older adults. You have been informed that the student body varies from a recent high school graduate, a mother in her 30s with 2 children, and a 42-year-old male who is changing his career path. You are thinking about how to engage this diverse audience.
- You recently began your first clinical position after graduating with your DPT and were asked to conduct an in-service to a select group of hospital personnel (orthopedic surgeons, radiologists, physical therapists, and occupational therapists) on the benefits and use of ultrasound for imaging in rehabilitation. You are considering what to include and how to conduct this session.
- You have just completed the first year of your physical therapist education program and are about to begin your first full-time clinical experience. You have done very well in your courses and are wondering how you can continue to excel in your clinical experience.

If you can identify with one or more of the above scenarios, reading this text is exactly where you should be! The excitement of a new endeavor can quickly change to a less than expected outcome if all the factors of the new experience are not considered, and steps are not taken to make this an effective experience. This text has been designed to address the knowledge, skills, and attitudes to provide effective instruction by a variety of individuals, to diverse learners, in a wide range of scenarios.

When the authors invited me to submit a Foreword on this second edition of their text, I was honored and delighted to accept. As an experienced faculty member, I have personally benefited from the expertise and talents of this team having attended 2 sessions on designing and implementing Systematic Effective Instruction (short and long versions) that they have presented over several years at the Combined Sections Meeting of the American Physical Therapy Association. The knowledge and skills that I learned from these presentations and this text certainly were instrumental in improving new and ongoing instructional activities I have had to conduct. I would like to offer some highlights of this text that likewise could assist others who conduct any instructional activity.

First, as the subtitle of the text implies, *From Classroom to Clinic*, teaching and learning occur throughout the continuum of education and practice in the profession of physical therapy. Although this may seem exclusive to the academic arena, this applies to nearly every instance when a patient or client is seen by a physical therapists or physical therapist assistant. These factors serve as fundamental tenets of this text: a) characteristics and outcomes of the learners are just as important as the skills of the teachers, and b) practitioners constantly teach knowledge and skills to their learners, the patients/clients they treat.

Similarly, the benefits of the text apply to the student as well as the teacher. Students in physical therapy education must learn how to effectively instruct patients and clients to learn about their conditions and accurately perform activities just as the physical therapists and physical therapist assistant, which they will become, must do. In addition, a new chapter in this edition specifically addresses the transition from the classroom to full-time clinical experience and how the student can excel in this very different environment (see Chapter 12).

The format of the chapters emulates the principles and practices of active learning, a fundamental factor of effective teaching and learning. Content is replete with questions and applications that enhance learning, including Stop and Reflect, Critical Thinking Clinical Scenarios, and Key Points to Remember. The material becomes vivid and more meaningful rather than appear as a series of PowerPoint slides filled with information.

The chapters on systematic effective instruction, which include a new one on facilitating higher-order and critical thinking in the classroom and clinic, serve as the core for excellence in instructional design and delivery. Designing any instructional activity should "begin with the end in mind" (see Chapter 5). What are the expected outcomes for the learner throughout the instructional session. These are absolutely essential to provide an effective teaching/learning experience.

Indeed, the authors include these in the list of "non-negotiable" attributes of systematic effective instruction: needs assessment, motivational hook, learning objectives, content booster and active learning strategies, and summary (see Chapter 7). I can attest to these as providing the basis for excellence in instruction having used these principles and practices to enhance a variety of educational arenas from a single classroom session to an entire course. I have also had the pleasure of seeing this in action as a learner in instructional sessions provided by the authors on the topic. The room was filled with individuals who were engaged and enthusiastic in the learning process, and eager to incorporate these practices in their work.

Active learning strategies, such as those above, require time, therefore, the authors contend that content for any instructional activity should be limited to the "needs to know" category. Data from sources noted by the authors indicate that lectures provide the lowest retention rate of material presented as compared to other strategies, such as demonstrations, discussions, practice, and teaching others (see Table 5-4). The delivery of instruction for any audience should limit time spent using the classical lecture approach and maximize use of strategies to engage the learner and enhance retention. Although the lecture method of instructional delivery still predominates in physical therapy education, increased use of technology is fostering other more engaging strategies, such as blended learning and the "flipped classroom." The final chapter of the text addresses this expanding area to move instruction beyond the classroom and clinic.

Teaching and learning are pervasive in physical therapy education and practice. This text is an excellent resource to understand learners and design and deliver effective instruction. It should be in the personal library for any novice or experienced physical therapy educator or clinician. The same applies to students in physical therapy education as they learn how to instruct their patients, clients, and others. I commend the authors for their excellent work in this area and look forward to their continued contributions to our profession.

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Introduction

"Learning and teaching are not inherently linked. Much learning takes place without teaching, and indeed much teaching takes place without learning."

—Etienne Wenger, *Communities of Practices: Learning, Meaning, and Identity.*

"Teaching, in my estimation, is a vastly over-rated function."

—Carl Rogers, *Freedom to Learn*.

STOP AND REFLECT

What comes to mind when you think about "Teaching and Learning in Physical Therapy Practice"?

- *Who* do we teach?
- *What* do we teach?
- *Where* do we teach?
- *When* do we teach?
- *How* do we teach?
- *Why* do we teach?

Teaching is a significant component of any clinical practice. In physical therapy, we teach patients, families, colleagues, students, community members, and other professionals, and as we teach we learn. Teaching and learning are both formal and informal, and happen on a daily basis (Figure I-1). Teaching and learning are dynamic skills that require both knowledge and practice to perfect.

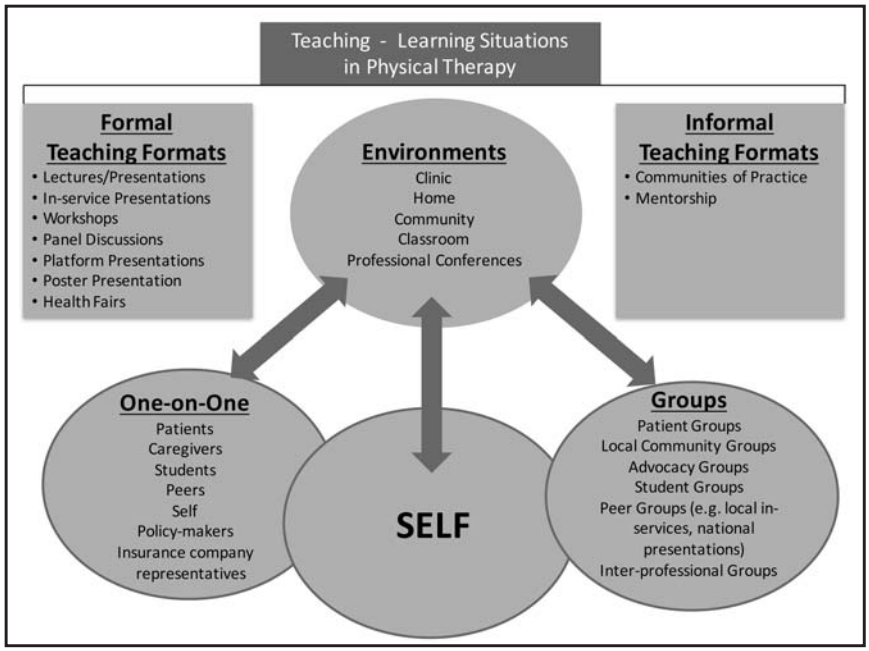

Figure I-1. Samples of teaching-learning situations in physical therapy.

STOP AND REFLECT

Consider the opening quotes:

- Why would we title this book *Teaching and Learning in Physical Therapy: From Classroom to Clinic*?
- Why, too, would we begin a book on teaching and learning with these quotes, which suggest that teaching is relatively unimportant and vastly overvalued?

When we prepared the first edition of this text, a colleague asked us why we decided on the title *Teaching and Learning in Physical Therapy*. She asked, "Isn't it a book for educators; isn't it really about teaching? So why 'learning' "? We believed, and continue to believe, that teaching and learning are inseparable. Our goal in this second edition is to continue to help the reader make that link between teaching and learning. In any teaching-learning situation, the goal is to ensure that learners learn. Whether we are in the formal setting of the classroom or the more informal community of practice of the clinic, learning is critical to professional development and to quality patient care. In physical therapy, learning is a lifelong process, as is teaching. In practice, what was learned becomes more important than what or how something was taught. We would agree that teaching without learning is relatively unimportant and vastly overvalued!

To be effective educators and clinicians, it is important to understand who we are as learners; to explore how we learn, how we think, and how we approach our problem solving. We must identify our strengths and the areas where we struggle. We need to recognize the assumptions that we bring to the teaching-learning situation and what influences our decision making. Most of all, we want to be certain our teaching is linked to learning. For a long time, literature suggested that good teachers were born and not made. Not true! Teaching and learning are skills that, like other physical therapy skills, must be learned and perfected.

In physical therapy, knowledge is being generated at such an enormous rate that much of what we learn today may very well be obsolete within a few years. Unless we are helping our learners to understand *how* to learn, to critically think, and to problem solve, we are only truly preparing them for today and not for the future. Even when working with patients, it is not enough to teach them a skill, we need to help them learn to problem solve challenges that they may face once they leave the clinical setting. Our learners need to be prepared to leverage their resources and to use their communities of practice for purposes of lifelong learning. As clinicians and educators, we have moved from being teachers with all of the answers to being facilitators of learning, from being the "Sage on the Stage" to being the "Guide on the Side." We no longer view our learners as blank slates or passive recipients of knowledge; rather, they bring their own knowledge and experiences and are active participants in the learning process, in negotiating meaning, in developing identities, and in creating new knowledge. Learning is not simply an accumulation of facts; it is a process of adapting information and transforming it into something useful.

Learning is about making connections and linking them to prior experiences so that we can modify what we know. Learning is a dynamic and complex process, and each new connection influences how we approach all future situations. As clinicians and educators, our role is to identify and acknowledge the experiences that our learners bring to the learning situation, which includes the clinical setting, and to help them make those connections and transform their knowledge and problem-solving abilities. It is important to recognize as educators that we, too, bring our own knowledge, experiences, and assumptions to the teaching-learning situation and that we, too, learn and change with each experience. Even as authors of this text, we brought our personal histories and research to our writing, and we continue to learn from the process. For us, teaching and learning are inseparable, which is why we use the term *teaching-learning experience* throughout this text. Not only are they inseparable, but they are integral to physical therapy practice. Teaching and learning do not just happen in the classroom, they continue to happen every day in both the classroom and the clinic while interacting with patients, families, peers, and community members.

In this text, we explore what it takes to be an effective teacher and learner in physical therapy, and we provide you with multiple opportunities to apply, adapt, and practice the skills required to ensure excellence in teaching and learning.

Aim and Audience

This text is designed for anyone interested in enhancing his or her skills as a learner, clinician, and educator in physical therapy. Whether you are a student, clinician, first-time presenter, or faculty member, or whether you are a teaching student, peer, or patient, you will find this book useful. This text offers a systematic approach to designing, implementing, and evaluating effective teaching-learning experiences. We offer practical strategies throughout that can be adapted to

a variety of teaching and learning situations. The concepts discussed are relevant for any health care provider; although, given our experiences in physical therapy, the examples and activities relate specifically to physical therapy practice.

Content

This text is divided into the following 3 sections: (I) Who Are We as Teachers and Learners?; (II) Designing, Implementing, and Assessing Effective Instruction; and (III) From Classroom to Clinic and Beyond.

In Section I, we explore who we are as individuals, how that impacts the teaching-learning experience, and what that means for us as educators. We describe strategies to help us to explore our own assumptions, to self-assess, and to become effective communicators and good critical thinkers essential to effective instruction. In Chapter 1, "Filters: Individual Factors That Influence Us as Teachers and Learners," we begin by exploring different characteristics of learners and teachers. We use the terms *personal filters* or *lenses* to describe some of the factors that may impact how we teach and how we learn. We refine our understanding of the factors that shape our values, beliefs, and worldviews including our past experiences, culture, gender, generational differences, levels of expertise, and current social roles (ie, family, work, community) and further develop our presentation of the characteristics of the adult learner. These filters certainly influence us as individuals and may impact any teaching-learning situation in which we are involved. This chapter highlights the importance of recognizing how designing effective instruction requires us to know our learners and therefore gain an appreciation of the dynamic interaction of all of these filters.

In Chapter 2, "Reflection and Questions: Developing Self-Awareness and Critical Thinking for Continuous Improvement in Practice," we explore the reflective process (what it is, why it is important and how to facilitate it). In this edition, we focus on reflection as the basis for critical thinking, self-assessment, and clinical decision making. We describe reflection as the basis for lifelong learning and the development of therapeutic relationships and expertise in practice. We emphasize the art of questioning, which goes way beyond the types of questions asked to include the environment and the ways in which they are asked. Although asking questions might seem intuitive for some, the challenge lies in whether we are asking the right questions at the right time and in the right way to facilitate reflection and critical thinking in ourselves and in others. This chapter highlights how we can use questions and the reflective process to better understand our learners and ourselves.

Chapter 3, "Communication and Conflict Negotiation: Facilitating Collaboration and Empowering Patients, Family Members, and Peers," is new to this edition. In this chapter, we address the pivotal role that communication plays in all aspects of physical therapy practice and how communication underpins the quality of care we provide. Building on concepts from Chapter 1, we discuss how communication can be misconstrued and provide strategies to minimize communication errors, whether working one-on-one with a patient or working in teams. We describe some of the potential barriers to communication and some strategies for effective communication. We discuss challenging patient scenarios, such as delivering bad news, apologizing for errors, or working with terminally ill patients, and offer various frameworks to help optimize communication in those scenarios. We discuss communication in teams and its unique challenges, as well as evidence-based strategies to optimize team communication such as SBAR (situation, background, assessment, recommendation), call outs, and hand-offs. We offer strategies for providing effective feedback and, finally, we discuss the inevitable: conflict. Many shy away from conflict. Here, we discuss various sources of conflict, conflict styles, and strategies to effectively manage conflict through communication.

In Chapter 4, "The Brain: Translating Current Concepts in Brain Science to Inform the Practice of Teaching and Learning," we continue to refine our understanding of brain function and its implications for teaching and learning. Since our first edition was published, neuroscience and cognitive psychology have greatly enhanced our understanding of the complexity of the human brain. In this edition, we continue to draw from these fields and add to our presentation on learning, memory formation, and memory retrieval. In this edition, we provide numerous strategies to enhance learning and retention, which you may find helpful, particularly for the struggling student. We have also added a section on how various practice strategies and factors such as sleep, exercise, and individual perspectives affect learning. We continue to acknowledge how brain research is truly in its infancy and how we are grateful to the neuroscientists and cognitive psychologists who work to unlock the complex function of our brain.

In Section II of this text we examine the design, implementation, and assessment of effective instruction. In Chapter 5, "Systematic Effective Instruction 1: Keys to Designing Effective Presentations," we present a comprehensive, systematic approach to instruction that includes assessing the needs of your learners, gaining their attention, and effectively presenting content to achieve the established objectives. We discuss motivational hooks, content boosters, formative assessments, practice opportunities, summaries, and summative assessments. In this edition, we enhance our presentation on active

learning, providing teaching strategies that are multidimensional and interactive, and discuss the importance of alignment from learning objectives to assessment and from a single presentation to a curriculum.

Chapter 6, "Systematic Effective Instruction 2: Going Beyond the Basics to Facilitate Higher-Order and Critical Thinking," is a new chapter in this edition. This chapter focuses on the importance of critical thinking in the practice of physical therapy. Whether as a student preparing to become a physical therapist, a licensed clinician performing clinical decision making in the clinic, or a patient learning new skills to improve his or her movement capacity, critical thinking is a necessary part of the learning process. The ultimate goal in developing critical thinkers is to prepare clinicians for the challenges of clinical practice; however, perhaps of even greater importance is our goal of preparing patients to be able to think through the challenges and problems that they will face at home and in the community. Here, we build on concepts presented in previous chapters (integrating reflection, questions, feedback, dialogue, and active and collaborative learning) to refine our learners' thinking in different environments. We discuss scaffolding techniques and provide strategies for creating learning activities that facilitate higher-order thinking both for individuals and for groups of learners, including mind maps, infographics, priming activities, and authentic environments. Recognizing that critical thinking is important not only for our students but also for our patients, we apply these concepts to clinical practice and to classroom teaching throughout this chapter.

In Chapter 7, "Systematic Effective Instruction 3: Adapting Instruction for Varied Audiences and Formats," we continue to build on the principles presented in the previous chapters. The goal of this chapter is to help you to adapt a presentation for different formats and different audiences. Here, we discuss the non-negotiables of systematic effective instruction and demonstrate how these concepts can be adapted and applied to a variety of formats common to physical therapy, including continuing education programs, platform presentations, panel discussions, health and wellness fairs, and the like. We also problem solve challenging issues often encountered in preparing for and providing presentations.

In Chapter 8, "Motor Learning: Optimizing Conditions for Teaching and Learning Movement," we transition from teaching through presentations, to designing environments and conditions that encourage learning through active engagement and practice. We describe how theories of motor control and motor learning inform practice. We examine various types of movement, task characteristics, and movement taxonomies; conditions of practice, types of practice, and practice schedules; and various forms of feedback. We discuss humans as information processors and link to concepts such as attention, interference, response alternatives, and accuracy demands. We integrate and apply these concepts to optimize learning given the individual, the task, and the environment. In this edition, we also discuss the importance of dual tasks and divided attention in helping our patients learn to move and function in their environment. Finally, the chapter ends with a discussion of teaching and learning differences across the lifespan.

In Chapter 9, "Patient Education: Facilitating Behavior Change," we focus on the importance of our patients as learners and our role in optimizing their learning. Adding to the filters discussed in Chapter 1, we examine concepts of health beliefs, explanatory models, motivation, and readiness to learn as components of understanding our patients as learners. We describe the importance of negotiating shared meaning and maintaining our patients at the center of the decision-making process. We emphasize our role in facilitating behavior change, examine the stages of change, and suggest strategies to help move our patient along the continuum of behavior change. We discuss potential facilitators and barriers to behavior change and identify strategies to facilitate adherence in our patients. We apply the same non-negotiable concepts of systematic effective instruction to educating our patients. Given the prevalence of low literacy in the United States, we also offer you strategies to assess your patient's literacy level and to design effective patient educational materials. Finally, we offer strategies to facilitate the long-term maintenance of behavior change in your patients. In this edition, we also provide evidence-based resources to facilitate learning and optimize adherence and retention, and we discuss concepts such as psychologically informed practice, motivational interviewing, Teach-Back Method, and Ask Me 3. The goal of this chapter is to help us empower our patients to become partners in their own health.

In Section III, we move from the classroom to the clinic and beyond. We focus on how learning takes place in the clinical setting, we provide strategies to optimize the clinical learning experience, and we discuss the use of technology in enhancing learning for students, clinicians, and patients. In Chapter 10, "Communities of Practice: Learning and Professional Identity Development in the Clinical Setting," we explore the concepts of apprenticeship learning and emphasize the development of professional behaviors. While focused on the affective domain, the concepts we present here can be generalized to all aspects of learning in the clinical environment. We use quotes from interviews with students and clinicians to illustrate and reinforce the concepts discussed. Through the quotes, students and clinical instructors provide their perspectives on how they developed their own professional identity.

In Chapter 11, "Optimizing Supports and Minimizing Barriers to Learning in the Clinical Setting," we present the concept of a learning triad involving the learner, the instructor, and the clinical community. We examine the role of mentorship within the physical therapy community of practice and how mentorship in physical therapy moves beyond the one-to-one relationship of the student and clinical instructor to include the entire learning triad. We examine the role

of the learning triad in both supporting and potentially hindering learning. We conclude with a framework for learning that optimizes the supports and minimizes the barriers to learning in the clinical setting. As in the previous chapter, we use direct quotes from students and clinicians to illustrate, reinforce, and provide opportunities to apply the concepts that are discussed.

Chapter 12, "Teaching and Learning in the Clinical Setting: Striving for Excellence in Clinical Practice," is new to this edition of the text. Given that clinical education is a significant component of entry-level physical therapist education programs, with students in many programs spending at least one-third of their curriculum time in full-time clinical education, this is an important addition. Here, we examine strategies to optimize the clinical learning experience for students. In this chapter, we build on and apply the concepts of systematic effective instruction to clinical education. The concepts of completing a needs assessment, planning learning objectives, capitalizing on the characteristics of adult learners, designing learning experiences, engaging, and assessing learners are applied to clinical education. The authors share successful tools and strategies from multiple students and clinical instructors with whom they have interacted over the years. This chapter also includes several appendices with worksheets and tools that students and clinical instructors can use to optimize the learning opportunities available in the clinical setting.

Section III and the text conclude with Chapter 13, "Harnessing Technology: Enhancing Learning in the Clinic and the Classroom." This chapter has been substantially revised from the original text, with a greater focus on the "why" and "what for" of e-Learning. Emphasis is placed on how technology can be used to support all of those involved in teaching and learning in physical therapy—students, clinicians, patient educators, teachers, and lifelong learners. Framed around the principles of systematic effective instruction, we discuss strategies to motivate and engage a diverse group of learners using multiple modalities and the Universal Design for Learning. We provide strategies and tools to address a wide range of challenges and needs in physical therapy education. We also discuss factors to consider in using technology such as copyright issues, challenges of various device interfaces, and the importance of maintaining separate professional and personal identities on social media. Although technologies evolve, the foundational principles and concepts we present will remain relevant and will help you to navigate the ever-changing landscape.

Format

The format of this edition remains unchanged. Each chapter begins with a set of Chapter Objectives that clearly delineate what you, the reader, will be prepared to do after completing the chapter, and concludes with a Summary of the major concepts presented in the chapter. Embedded throughout each chapter are opportunities for you to "Stop and Reflect" and actively engage with the content as you process the information presented. Concepts are supported by research and clinical examples. You will have multiple opportunities to apply and adapt these concepts to real world situations through "Critical Thinking Clinical Scenarios." Finally, concepts are reinforced through frequent "Key Points to Remember."

Instructor's Manual

The Instructor's Manual includes numerous examples of in-class activities and assignments designed to apply and extend concepts presented in each chapter. Examples of active learning strategies, such as gallery review, small group brainstorming, group problem-solving tasks, and reflective writing assignments are provided throughout.

I

Who Are We as Teachers and Learners?

1

Filters
Individual Factors That Influence Us as Teachers and Learners

Margaret M. Plack, PT, DPT, EdD and Maryanne Driscoll, PhD

Chapter Objectives

After reading this chapter, the reader will be prepared to:

- Consider the influence of individual characteristics and experiences on us as teachers and learners in the classroom and clinic.
- Describe the various factors or filters that influence who we are as teachers and learners.
- Analyze how our cultural and generational experiences influence our role as teachers and learners.
- Examine how adult learning principles and learning styles influence us as teachers and learners.
- Recognize the influence of the dynamic interactions of these individual factors on our role as teachers and learners.
- Consider the implications of these dynamic interactions on designing effective teaching and learning experiences in the classroom and clinic.

Dewey is often considered to be the father of experiential learning. He believed that all learning is grounded in our experiences and that our experiences very much influence how, why, and what we learn.[1,2] Our past experiences influence how we view and react to the world around us, both as learners and as teachers. Before we can begin to think about how to facilitate learning in others, we must first develop a better understanding of who we are and what we each bring to the learning situation. The more we learn about ourselves and what might be influencing us as individuals and learners, the better equipped we are to learn about others in our learning environment, including our patients and other learners. In this chapter, we explore some of the factors that make us unique as individuals, teachers, and learners.

We use the terms *personal filters* or *lenses* to describe some of the factors that may impact how we teach and how we learn. These lenses overlay one another and bring to the forefront the complexity of the teaching-learning situation. We explore the factors that influence how we experience a learning situation, which include but are in no way limited to our perceptions, culture, gender, past experiences, generational experiences, level of expertise, and current social roles (ie, family, work, community). While each of these filters has an influence on us as learners and as teachers, we cannot always know to what extent they impact any given learning situation. Therefore, we discuss how critical it is to recognize and respect the potential influences of each of these filters. The goal of this chapter is for us to recognize that designing effective instruction requires an appreciation of the dynamic interaction of all of these filters. Getting to know our learners is like peeling away an onion; the more layers we peel away, the closer we are to truly understanding our learners and what may be influencing them.

Plack MM, Driscoll M.
Teaching and Learning in Physical Therapy: From Classroom to Clinic, Second Edition (pp 3-28).

STOP AND REFLECT

Look at Figure 1-1. What do you see?

Figure 1-1. Ambiguous woman.

- Would you describe the person as being young or old?
- What type of job, if any, does the person have?
- Would you describe the person as being attractive or unattractive?

Perception

When you first looked at the picture in Figure 1-1, did you see more than one image? If not, look more closely and you will eventually see 2 different images. Generally, people will immediately see one of the images in the picture and, at times, struggle to see the other. Depending on how you view the picture of the young woman or the older woman, you will respond to the questions posed very differently. Two people can look at the very same picture and see 2 very different things, which will influence how they respond and react.

STOP AND REFLECT

Look at Figure 1-2.

Figure 1-2. Picture of a person in a wheelchair.

- What is your reaction?
- What do you think is going on?
- What do you think each person is thinking and feeling?

Unlike a simple optical illusion, the cartoon presented in Figure 1-2 can elicit an emotional response that is guided by our own perceptions. These perceptions are influenced by our own personal experiences and cultural beliefs. As a result of our perceptions, we begin to make assumptions and judgments about the world around us. For example, depending on your past experiences, you may make different assumptions about what is happening in the cartoon. One individual may view this as a very positive experience, seeing the woman as being positive and kind to the young boy, while another may view this as a negative experience, seeing the woman as being overbearing and patronizing without stopping to consider the young boy's feelings.

In his book titled *The 7 Habits of Highly Effective People*, Covey[3] discusses the concept of internal maps. These maps determine how we view the world and are based on own value system and beliefs. He describes people as having the following 2 sets of internal maps: (1) our realities or how

Table 1-1

Examples of Mismatched Intention and Impact

YOUR INTENTION	THE POTENTIAL IMPACT
To be humorous	Sarcasm, flip, glib, silly, making fun of
To be fair	Rigid, unyielding, inflexible, unfair
To be flexible	Wishy-washy, unfair, favoritism, weak, indecisive
To understand someone's thinking (ie, asking why?)	Insubordinate, rude, challenging, confrontational

things are and (2) our values or how we think things should be. We often accept these maps without question because they grew out of our own personal experiences in life. This is how we perceive the world. As a result of our own perceptions of the world, we make assumptions and we assume the way that we view the world is reality. These assumptions also influence the judgments we make and how we act in certain situations.

As humans, we make assumptions about people all the time. As physical therapists, it is a significant part of what we do. As physical therapists, we are data gatherers! The minute a patient walks into the room, we begin to collect data on that person and, based on the data we collect, we begin to make assumptions about that person. For example, if a patient walks into the room limping and grimacing, we immediately begin to assume that he or she is in pain. We often use hypotheses to guide our clinical decision-making process. We make hypotheses and then test those hypotheses, and, based on the outcome, we revise those hypotheses. Assumptions are like hypotheses, except people are not always aware of their assumptions and therefore do not always stop to test their assumptions. Very often, our assumptions are accurate, just like our hypotheses; however, there are times when they are not. Making assumptions is not really a problem until we begin to act on our assumptions without first checking the accuracy of them.

CRITICAL THINKING CLINICAL SCENARIO

A second-year physical therapy student recently completed her first 4-week, full-time clinical rotation. In meeting with the director of clinical education, she describes her clinical instructor (CI), who had many years of experience, as being awful. When asked why, the student responds that the CI had poor evaluation skills, rarely completed a full examination, and often made decisions simply based on a few quick tests.

Reflective Questions

1. What do you think is going on in this scenario?
2. How might the student's limited experience in physical therapy be influencing her perceptions of the CI's skills?
3. How might the physical therapist's expertise be influencing her approach to the examination?
4. How might the perceptions of each differ?
5. What other explanations might there be for what may have happened in this scenario?

There are always at least 2 people in any teaching-learning situation, each with their own perceptions. And, whenever you are interacting with 1 or more people, the following 2 things are always happening simultaneously:

1. The intended behavior of the person saying or doing something (ie, the intention)
2. The impact of that behavior or comment on the person on the receiving end (ie, the impact)

The intent and the impact do not always match. As noted earlier, our personal perceptions are often very strong and often color the way we view the entire world; they are very much a part of what we bring to the teaching-learning situation. Our personal perceptions influence both intention and impact. For example, if the student in the previous clinical scenario perceived that the CI lacked expertise, it may have colored or influenced how that student reacted to the examination and to any feedback that the instructor may have offered.

Another example might be the experience of intending to help someone and having the person on the receiving end react negatively to your actions. In the illustration presented in Figure 1-2, the intent of the woman may very well have been to show kindness and offer assistance, while the young boy, wanting to be independent, may have experienced her kindness as unwanted and unnecessary. Intention and impact are essential components of any communication and may influence how learners react to the teaching-learning situation. Examples of how intention and impact may be easily mismatched are provided in Table 1-1.

STOP AND REFLECT

Have your intentions ever been misunderstood? If so:

- What were your intentions?
- What was the impact on the other person?
- How might this influence your assumptions and actions in the future?

It is important to recognize that a mismatch can easily occur and that, in any given situation, there are the following 2 experts:

1. The person behaving is the expert on the *intention* of the action
2. The person on the receiving end is the expert on the *impact* of the action

To minimize the likelihood of these mismatches becoming problematic, clear communication between teacher and learner is essential. If there is any chance that a mismatch between teacher/practitioner and learner/patient has occurred, it is important to clarify the intent and describe the impact to maintain an effective teacher-learner relationship.

Here is one final example of this concept: A therapist instructs a patient to perform 7 home exercises each day over a 1-week period. The therapist's intention may have been to provide the patient with numerous options, knowing that he or she will likely complete only some of the exercises. The therapist may have assumed that giving the patient a choice would result in enhanced adherence, with the patient completing at least a few exercises each day. However, this may have resulted in the patient feeling overwhelmed by the excessive number of exercises provided. Unless the therapist both checked his or her assumptions and clarified his or her intentions with the patient, a mismatch may have occurred. This mismatch may have had a negative influence on adherence and on the development of an effective therapeutic relationship.

As noted, it is critical to recognize the potential for mismatched communication in clinical practice, particularly when engaging with a number of learners simultaneously. Clarifying the intent and checking the impact of the communication is essential to developing and maintaining an effective teacher-learner relationship. The teacher must continually clarify intentions, and the learner must be made to feel comfortable enough to provide feedback whenever communication has had a negative impact.

KEY POINTS TO REMEMBER

- There are 2 experts in every communicative interaction, described as follows:
  - The provider is the expert on the intent of the communication.
  - The receiver is the expert on the impact of the communication.
- Clarifying the intent and checking the impact of the communication are essential to developing and maintaining an effective teacher-learner relationship.

Cultural Differences

The United States population is becoming more and more diverse. People from different cultures often bring with them different values, beliefs, and experiences. If we do not appreciate these differences, they may become barriers to effective teaching and quality health care. Different cultures have different beliefs about illness, intervention, prevention, and health promotion. We each tend to think our own beliefs are right and make most sense; however, we must suspend our own beliefs as we strive to understand our patients' beliefs to provide effective instruction or health care. This underscores the need to consider culture as another personal filter in any teaching-learning situation.

STOP AND REFLECT

- Do you believe that by treating everyone as you want to be treated you will be meeting their needs and providing effective care?
- Can you think of a time when this might not have been true?

Bennett writes the following[4]:

> The Golden Rule is typically used as a kind of template for behavior. If I am unsure of how to treat you, I simply imagine how I myself would like to be treated, and then act in accordance. The positive value of this form of the Rule is virtually axiomatic in US American culture, and so its underlying assumption frequently goes unstated: other people want to be treated as I do. And under this assumption lies another more pernicious belief: all people are basically the same, and thus they really should want the same treatment (whether they admit it or not) as I would.

Simply stated, the Golden Rule in this form does not work because people are actually different from one another. Not only are they individually different, but they are systematically different in terms of national culture, ethnic group, socioeconomic status, age, gender, sexual orientation, political allegiance, educational background, and profession, to name a few possibilities.

STOP AND REFLECT

- What does the quote from Bennett mean to you?
- In what ways, if any, does this quote change your perspective on culture as a filter in the teaching-learning situation?

While it may seem obvious that knowledge of different cultures is critical in teaching and in health care, the process of understanding different cultures cannot be oversimplified. The danger in teaching others about different cultures is the possibility of reinforcing stereotypes. *Stereotypes* are generalizations that individuals make about people of other cultures. Learning about cultures may, at times, foster a simplistic view, whereby learners attempt to fit people into categories learned. Generalizations can be a helpful entry point to understand more about your learner or your patient. For example, understanding that an Orthodox Jewish man may prefer a male therapist may facilitate patient assignments in a busy clinic. However, if a female therapist in the clinic has a strength in managing this patient's particular dysfunction, it would be important to have a conversation with the patient to ascertain his individual perspective before simply assigning a male therapist. Generalizations are like hypotheses and assumptions; they must be checked. It is critical to check your assumptions with each patient.

CRITICAL THINKING CLINICAL SCENARIO

You have been reviewing the literature on cross-cultural differences. The literature suggests that in dealing with pain, individuals from Italian and Jewish descent tend to complain about their pain, whereas Americans are often more stoic and those from Irish descent tend to ignore pain.[5-7] You are a health care provider of Irish descent. You were born and raised in New England and your family has lived there for 7 generations. You have the following 3 patients: 1 of Jewish descent, 1 of Irish descent, and 1 of Italian descent.

Reflective Questions

1. How might your cultural background influence the type of pain questions you ask each of these patients?
2. How might your cultural characteristics impact your reaction to their reports of pain?
3. Knowing about the influence of culture on one's pain experience, how might you alter the questions you ask to better assess each patient's pain?

Culture is a complex concept with no standard terminology. The U.S. Department of Health and Human Services Office of Minority Health focuses on *culturally and linguistically appropriate services*, which are described as being "respectful of and responsive to the health beliefs, practices and needs of diverse patients."[8]

It is important to remember that there is often as much variability within cultures as there is across cultures. Purnell[6] and Purnell and Paulanka,[7] suggest that subcultures exist within a culture where 2 individuals may have had very different personal experiences and therefore view the world differently. Subcultures are a result of various factors, including age, generation, nationality, race, color, gender, socioeconomic status, marital status, occupation, physical characteristics, religious affiliation, sexual orientation, and reason for migration. For example, a 62-year-old Asian male business owner who emigrated from China at the age of 4 years may have a very different view of Western health care practices than a 62-year-old Asian man who is a new immigrant from China.

KEY POINT TO REMEMBER

- It is important to remember that there is often as much variability within cultures as there is across cultures!

The following are 2 components to understanding cultures: (1) learning the basic facts and characteristics of different cultures and (2) learning how to effectively engage in cross-cultural encounters. Presenting the specifics about different cultures is beyond the scope of this book; however, there are numerous resources available, including textbooks, research articles, and the like.[5,6,9-14] In addition, websites, health care provider brochures, and videos can be easily accessed to help you learn more about different cultures, especially those most represented in your practice. [14]

Learning about different cultures is not enough, however. It is important to go beyond simply learning facts about different cultures to developing skills and abilities