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Speaker Introduction

- Diana Palandri is a PGY2 Ambulatory Care Pharmacy Resident at the University of Utah Health. She received her Doctor of Pharmacy degree from the University of Nebraska Medical Center and completed her PGY1 residency at the University of Utah Health.
- Throughout her education, she has learned from many experienced preceptors who have influenced her career path and interests. Being a skilled preceptor is crucial to provide a positive learning experience for learners and can require continuous training. As pharmacy expands to include more practice settings, pharmacists and technicians will have a role in educating new staff, residents, and students in these areas. Preceptor development activities are one way to improve precepting skills and are relevant to pharmacists and technicians in all practice settings.



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Diana Palandri, PharmD
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Precepting “Chameleon”: Adapting to Learners’ Styles, Personalities, and Interests

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Disclosure

- Relevant Financial Conflicts of Interest
- **CE Presenter, Diana Palandri, PharmD:**
 - None
- **CE mentor, Nicholas Cox, PharmD, BCACP:**
 - None
- Off-Label Uses of Medications
 - None



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Pharmacist Learning Objectives

Identify

- Identify learning style assessment tools

Design

- Design activities to accommodate different learning styles

List

- List ways to engage learners who have interest in pharmacy practice areas other than your own

Practice

- Practice delivering feedback to accommodate learner personalities



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Technician Learning Objectives

Differentiate

- Differentiate between the types of learning styles

Recognize

- Recognize ways to accommodate learner personality preferences

Describe

- Describe how to apply teaching adaptation strategies in various pharmacy practice settings



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Past Precepting Experience

1. Give an example where your precepting style *clashed* with the learner's style
 2. Compare this with a learner who's style *matched* your own
- Which was a better experience for you as the preceptor?
 - Which was a better experience for the learner?



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Background

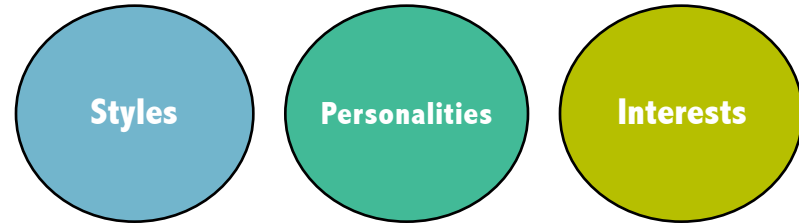
- Pharmacy is expanding to include more practice settings and specialties
- Role of pharmacists and technicians to educate learners in these areas
- Preceptor training applies to pharmacists and technicians, in all practice settings
- Knowledge of learner styles and preferences can enhance learning and teaching experiences



Knott GJ et al. Am J Pharm Educ. 2020 Oct;84(10). Loewen PS et al. Am J Pharm Educ. 2013;77(8):Article 163-1-6.

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Outline



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Learner Styles



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Learning Styles

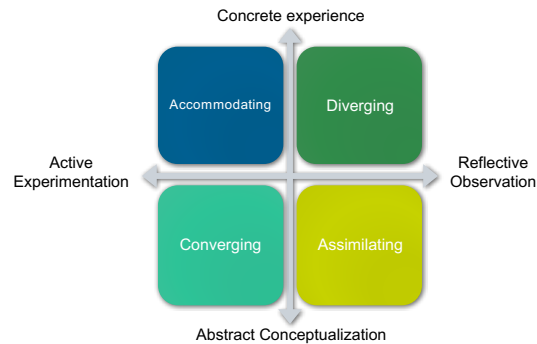
- Defined: cognitive, effective, and psychosocial behaviors that indicate how learners perceive, interact with, and respond to the learning environment
- Learners have preferences that can change depending on experience and time
- Can have multiple learning styles, but usually one is dominate
- Awareness can help educators develop more effective teaching approaches to fit learner's needs



Robles et al. Am J Pharm Educ. 2012;76(7):128. Kolb et al. Experience Based Learning Systems. 2013.

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Kolb Learning Styles



Kolb et al. *Experience Based Learning Systems*, 2013. 13

Learning Style Assessment Tools

- Can be used by learners and educators to increase awareness of preferences
- Don't have to match for the experience to be successful
- Consider including a discussion on styles in the initial stages of teaching
- Can promote self-reflection and improve preceptor development
- Can encourage preceptors to use various styles to challenge learners



Robles et al. *Am J Pharm Educ*. 2012;76(7):128 14

Learning Style Assessment Tools

- Kolb Learning Style Inventory (KLSI)
 - Studied in health professions
 - Categorizes learners by how they prefer to acquire knowledge
- Honey and Mumford's Learning Style Questionnaire
 - Activist
 - Reflector
 - Theorist
 - Pragmatic



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Pharmacist's Inventory of Learning Styles (PILS)

- 17-item questionnaire specific to pharmacy
- Variation of Kolb's learning style inventory
- Developed after working with 40 pharmacists from varying disciplines
- Determines preferences when learning something new
- Provides dominant and secondary learning styles



Austin Z. *Am J Pharm Educ*. 2014; 68 (2); Article 37. Robles et al. *Am J Pharm Educ*. 2012;76(7):128 16

Take the Assessment

- Add the number of times you circled the symbol
- Dominant learning style: highest number circled
- Secondary learning style: second highest number circled

The Pharmacist's Inventory of Learning Styles (PILS) Assessment

"When I am trying to learn something new..."	Usually	Sometimes	Rarely	Hardly
I like to watch others before trying it for myself.	◆	♥	●	☀
I like to consult a manual, textbook, or instruction guide first.	◆	●	♥	☀
I like to work by myself, rather than with other people.	☀	●	◆	♥
I like to take notes, or write things down as I'm going along.	◆	●	♥	☀
I'm critical of myself if things don't work out as I hoped.	◆	●	♥	☀
I usually compare myself to other people (just so I know I am keeping up).	◆	♥	●	☀
I like to examine things closely instead of jumping right in.	◆	☀	◆	♥
I rise to the occasion if I'm under pressure.	◆	☀	◆	♥
I like to have plenty of time to think about something new before trying it.	♥	◆	●	☀
I pay a lot of attention to detail.	◆	●	♥	☀
I concentrate on improving the things I did wrong in the past.	◆	☀	♥	●
I focus on reinforcing the things I got right in the past.	◆	♥	☀	●
I like to please the person teaching me.	♥	◆	☀	●
I trust my hunches.	♥	◆	☀	●
In a group, I'm usually the first one to finish whatever we're doing.	☀	●	♥	◆
I like to take charge of a situation.	●	☀	◆	♥
I'm well-organized.	◆	☀	◆	♥

Austin Z. Development and Validation of the Pharmacist's Inventory of Learning Styles (PILS). American Journal of Pharmaceutical Education 2014; 68(2): Article 37.



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After taking the Pharmacist's Inventory of Learning Styles (PILS), what is your dominant learning style?

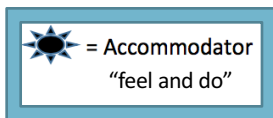
- A: ☀ = Accommodator
- B: ◆ = Assimilator
- C: ● = Converger
- D: ♥ = Diverger



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Applying Learning Styles

- Learns best with hands-on activities
 - Avoid lectures
 - Give resources for learning
- Prefer concrete ideas to abstract ones
- Goal-oriented
- Value efficiency
- Prefer direct feedback

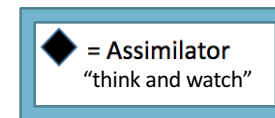


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Applying Learning Styles

- Learns best by observing others first
 - Prefer lectures from experts (e.g. topic discussions)
 - More passive learning
- Prefer working alone
 - Give individual work
- Organized, attention to detail
- Rule-oriented, structured
- Avoid attention
- Prefer feedback using the Sandwich method



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Applying Learning Styles

- Learns best by doing
- Prefer group work
- Don't mind attention
 - Provide presentation opportunities
- Leaders
- Practical, focused, decisive, problem-solver
- Prefer fast-paced environment
 - Give enough tasks to keep them busy
- Prefer direct feedback

● = Converger
"think and do"



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Applying Learning Styles

- Learns best with creative games, unstructured activities
- Prefer group work without time constraints
- Value harmony, creative
- People-oriented
- Prefer feedback using the Sandwich method
 - Use caution giving negative feedback

♥ = Diverger
"feel and watch"



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Your rotation student, Marcia, took the PILS and her dominant learning style is "converger". How can you design rotation activities to accommodate her learning style? Select all that apply.

- A. Provide direct feedback
- B. Have her lead a relevant project and present it to the team
- C. Allow her to be creative and design a handout for the staff
- D. Provide time for individual work
- E. Check in often to make sure she isn't overwhelmed with work



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Which of the following groups of characteristics best matches the "assimilator" learning style?

- A. Prefers group work without time constraints, creative, harmonizer
- B. Prefers fast-paced environment, decisive, competitive
- C. Prefers individual work, likes to observe first, organized
- D. Prefers hands-on activities, resources for learning



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Learning Styles in Pharmacy

- Study with third-year IPPE and fourth-year APPE students and preceptors
- Primary style: Assimilator, Secondary style: Converger
- **95%** shared primary and/or secondary learning styles
- No correlation between performance and learning styles
- Study with pharmacy resident and preceptor learning styles
- Shared primary style: Assimilators or Convergents
- Residents had different secondary styles: Divergers and Accommodators
- Passive and watching styles predominate



Robles et al. *Am J Pharm Educ.* 2012;76(7):128. Loewen PS et al. *Am J Pharm Educ.* 2013;77(6):Article 163-1-6.

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Learner Personalities



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Myers-Briggs Type Indicator (MBTI)

- Used to determine personality types by measuring differences in perception and judgment
- Widely applied in training of health care practitioners
- Can influence learning styles and be a tool to determine effective teaching methods
- Preferences have been related to the type of profession students enter



Lowenthal W. *Evaluation & the Health Professions.* 1994;17(1):22-42. Jessee SA, et al. *J Dent Educ.* 2006 Jun;70(6):644-51

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Myers-Briggs Type Indicator (MBTI)

- 4 pairs of attitudes- 16 personality preferences possible

Attitude Pair	Action
Sensing-Intuition (S-N)	Gather information
Thinking-Feeling (T-F)	Make decisions
Extraversion-Introversion (E-I)	Spend time and energy
Judging-Perceiving (J-P)	Perceive the world

- Example: ISTJ: Introversion, Sensing, Thinking, Judging



Lowenthal W. *Evaluation & the Health Professions.* 1994;17(1):22-42. Jessee SA, et al. *J Dent Educ.* 2006 Jun;70(6):644-51

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Sensing - Intuitive

- **Sensing (Sensors) S**
 - Use senses to gather information
 - Observant, practical, detailed
 - Easier to build off known information
 - Incorporate visual materials, real-life applications
- **Intuitive (Intuitives) N**
 - Seek out patterns and relationships
 - Future thinking, big concepts
 - Creative, innovative
 - Appreciate independent learning



Lowenthal W. Evaluation & the Health Professions. 1994;17(1):22-42; Jessee SA, et al. J Dent Educ. 2006 Jun;70(6):644-51. 29

Thinking - Feeling

- **Thinking (Thinkers) T**
 - Use logic, analysis, and reason
 - Good at problem solving
 - Prefer to master material
 - Need clear course, order, and objectives
- **Feeling (Feelers) F**
 - Decisions based on values and effect on others
 - Personal connection
 - Enjoy group work
 - Appreciate praise
 - Give specific and positive feedback



Lowenthal W. Evaluation & the Health Professions. 1994;17(1):22-42; Jessee SA, et al. J Dent Educ. 2006 Jun;70(6):644-51. 30

Extroversion - Introversion

- **Extroverts E**
 - Energized by interaction with others
 - Think best by having discussion or group work
 - Enjoy variety of tasks and fast-paced environment
- **Introverts I**
 - Contemplate before discussing
 - Prefer reading, working independently, or small groups
 - Excel when allowed to listen, observe, or write



Lowenthal W. Evaluation & the Health Professions. 1994;17(1):22-42; Jessee SA, et al. J Dent Educ. 2006 Jun;70(6):644-51. 31

Judging - Perceiving

- **Judging (Judgers) J**
 - Structured and organized
 - Decisive and quick to act
 - Prefer to plan ahead and have clear instruction
- **Perceiving (Perceivers) P**
 - Spontaneous, flexible with plans
 - May procrastinate and work best under pressure
 - Provide multiple deadlines, give choices for assignments



Lowenthal W. Evaluation & the Health Professions. 1994;17(1):22-42; Jessee SA, et al. J Dent Educ. 2006 Jun;70(6):644-51. 32

MBTI Type Among Pharmacy Students

- Study of pharmacy students in 10 classes at 4 schools of pharmacy in the U.S.
- ISTJ was the most common personality type among pharmacy students
- Compared with practicing pharmacists, MBTI preferences were similar on the E/I and S/N scales
- More students had the Feeling and Perceiving preference than practicing pharmacist



Lowenthal W. *Evaluation & the Health Professions*. 1994;17(1):22-42. 33

Feedback Delivery Based on MBTI Types

- **Extrovert**
 - May be able to give verbal feedback or discuss in a group
- **Introvert**
 - Written feedback with time to prepare thoughts
 - May prefer one-on-one discussion in a private room
- **Feeler**
 - Provide praise in addition to constructive comments
- **Thinker**
 - May prefer direct feedback
- **Intuitive**
 - Give feedback to apply to their future, allow them to self-evaluate



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James is a PGY1 resident on rotation with you. He is reserved and rarely makes eye contact. He seems nervous when you tell him you plan to give feedback every Friday. What are some ways you could deliver feedback to accommodate his personality?



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You are training a new technician and they are improving, but still making mistakes. They completed the MBTI and are extroverted and feeling. How could you adjust your training to accommodate their personality? Select all that apply.

- A. Involve other team members
- B. Provide positive feedback on their strengths
- C. Create group learning activities
- D. Provide a variety of tasks
- E. Make time for discussion



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Learner's Interests



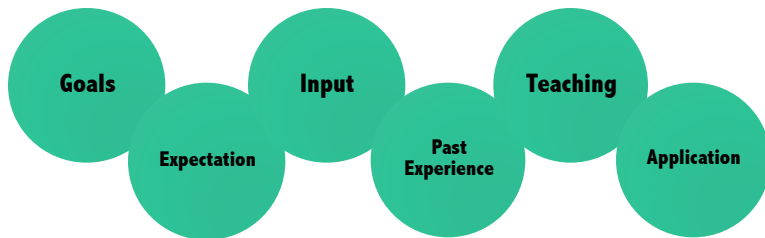
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Provide a situation where a learner was not interested in your area of practice. Can include things you've heard from others. What did you do to engage the learner?



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Engaging the Uninterested Learner



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A technician is working in your community pharmacy, but only to strengthen their resume while they look for an inpatient position. You need to teach them about the immunization protocol. How could you change your teaching strategy to engage them?

- A. Explain how additional responsibilities may be beneficial for other positions
- B. Express concern to the manager and request not to teach them
- C. Discuss the expectations of this position
- D. Adapting teaching strategies is not necessary in this case
- E. A and C are correct



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Controversy

- Learners may become disengaged if their learning style is not addressed, but new teaching styles could challenge their learning and improve education
- Learning styles may change with time and experience
- Educators shouldn't teach only to student's preferences, but may be helpful to balance a variety of teaching styles based on learning styles

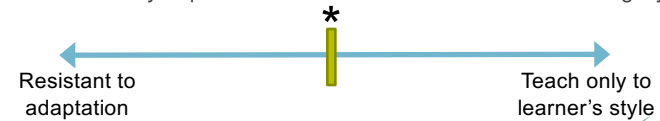


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Summary

- Teaching can be effective without adapting to the learner, but not always
- Adapting and understanding the learner's style, personality, and interests can improve the learner's experience and understanding
- Make small adjustments and avoid being resistant to change when a learner clearly requires or would benefit from a different teaching style



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