Precepting: Supporting Learners and Preceptors

Heather Niewald, BS, RVT
Jena Thompson, RVT, RDCS

1

SPEAKER PRESENTATION DISCLAIMER

The content and views presented are made available for educational purposes only. The information presented are the opinions of the presenter and do not necessarily represent the views of the Society of Diagnostic Medical Sonography (SDMS) or its affiliated organizations, officers, Boards of Directors, or staff members.

The presenter is responsible for ensuring balance, independence, objectivity, scientific rigor, and avoiding commercial bias in their presentation. Before making the presentation, the presenter is required to disclose to the audience any relevant financial interests or relationships with manufacturers or providers of medical products, services, technologies, and programs.

The SDMS and its affiliated organizations, officers, Board of Directors, and staff members disclaim any and all liability for all claims that may arise out of the use of this educational activity.

2

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Presentation Objectives

- Teaching strategies for ultrasound learners
- Support for preceptors
- Generational differences in learning styles

- Success of an orientation is highly influenced by the relationship between the preceptor and the preceptee.

3

What is a Preceptor?

- " A preceptor is an individual with demonstrated competence in a specific area who guides, assesses, and validates the knowledge, skill, and attitudes needed to transition to a new role, specialty or environment in the healthcare setting."[1]

4

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

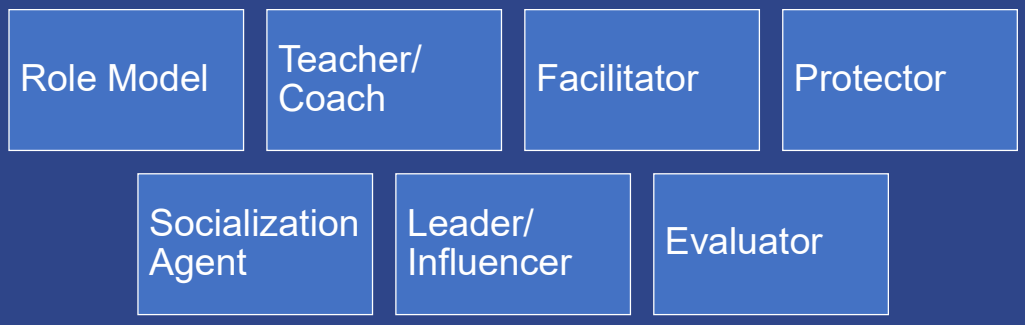
What is a Preceptee/Orientee?

- A preceptee is someone that is qualified to enter a specific field such as sonography but is inexperienced thus requiring training from an expert in the field (preceptor)
- Examples: students, new graduates, new employees

5

Ulrich Precepting Model[1]

- Identifies seven roles that preceptors should adopt when working with learners



6

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Preceptor Role: Role Model

- Professionalism and role competence
- "Role modeling is easier if everyone adheres to the same standards of practice and professional performance."[1]
- All staff are considered role models
  - All staff should adhere to the same standards
  - Preceptees will notice if there are discrepancies between sonographers

7

Preceptor Role: Teacher/Coach

- Expands competence using preceptee's strengths and learning skills

"It's not just about learning the skill; it's about how and when to use the skill and how to use it effectively."[1]

- Critical themes for a preceptee's learning:
  - Creating a space for learning
  - Providing concrete illustrations
  - Providing control over the opportunities and pace of learning
  - Allowing time for reflection

8

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Preceptor Role: Teacher/Coach cont.

- Coaching involves implementing a theoretical based approach
- Ask "what if" questions
- "What if" questions explore hypothetical scenarios and allow the preceptee to imagine alternative possibilities and speculative reasoning, fostering an environment for critical thinking

9

Preceptor Role: Facilitator

- Finds and creates positive learning opportunities
- "Find assignments that meet the needs of preceptees or making connections between preceptee and other departments."[1]
- Examples:
  - Choosing examinations for the preceptee with a known history of disease or the highest potential for pathology
  - Letting new employees shadow the vascular surgery clinic after scanning a patient to see the continuation of care after the ultrasound is complete

10

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Preceptor Role: Protector

- Ensures the safety of the preceptee and patient by creating a safe learning environment and providing oversight
- Creates a safe space for the preceptee to ask questions to address issues in a professional and timely manner

11

Preceptor Role: Socialization Agent

- Facilitates assimilation of the preceptee into the work environment and relationships
- Helps the preceptee understand social and cultural norms

12

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Preceptor Role: Leader/Influencer

- Inspires and guides the action of others
- Conveys professional values in the practice setting
- Helps to clarify goals and priorities

13

Preceptor Role: Evaluator

- "Provide feedback and constructive criticism to reinforce good performance, correct poor performance, and understand how improvements can be made."[1]
- Assesses preceptee's performance and competence
- Provides ongoing feedback for performance improvement
- Criteria based competencies
  - Both parties know expectation of standards and outcomes
- The goal is job readiness

14

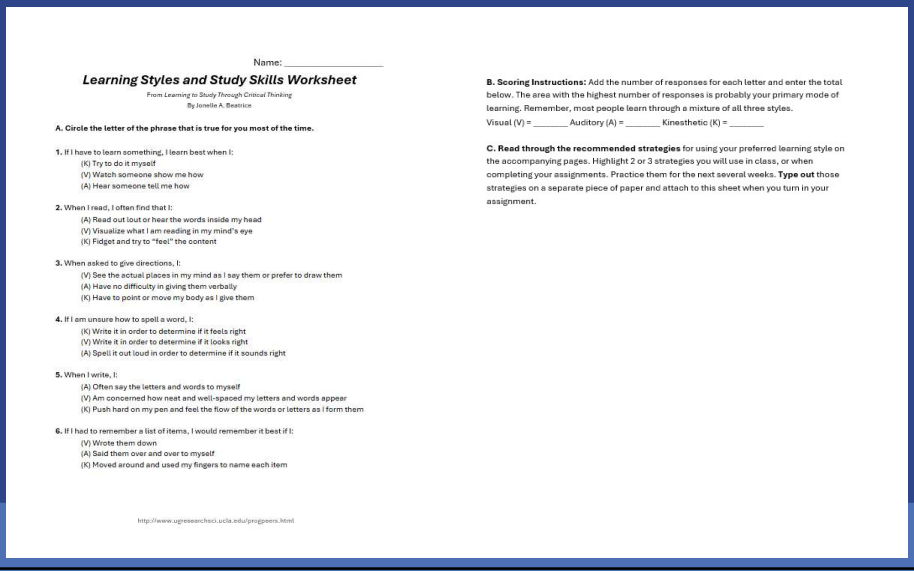
© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Learning Styles

- "The learning style is an individual's consistent way of perceiving, processing and retaining new information."[2]
- Types:
  - Auditory – Learns best by listening and talking to others and self
    - "Hear It to Learn It"[3]
  - Visual – Learns best by seeing, drawing and diagramming
    - "See It to Learn It"[3]
  - Kinesthetic – Learns best by doing, through movement and using a hands-on approach
    - "Feel It and Do It to Learn It"[3]

15

Learning Styles Quiz[3]



Name: _____

Learning Styles and Study Skills Worksheet

From Learning to Study Through Critical Thinking
By Jonelle A. Beatrice

A. Circle the letter of the phrase that is true for you most of the time.

1. If I have to learn something, I learn best when I:
(K) Try to do it myself
(V) Watch someone show me how
(A) Hear someone tell me how

2. When I read, I often find that I:
(A) Read out loud or hear the words inside my head
(V) Visualize what I am reading in my mind's eye
(K) Fidget and try to "feel" the content

3. When asked to give directions, I:
(V) See the actual places in my mind as I say them or prefer to draw them
(A) Have no difficulty in giving them verbally
(K) Have to point or move my body as I give them

4. If I am unsure how to spell a word, I:
(K) Write it in order to determine if it feels right
(V) Write it in order to determine if it looks right
(A) Spell it out loud in order to determine if it sounds right

5. When I write, I:
(A) Often say the letters and words to myself
(V) Am concerned how neat and well-spaced my letters and words appear
(K) Push hard on my pen and feel the flow of the words or letters as I form them

6. If I had to remember a list of items, I would remember it best if I:
(V) Wrote them down
(A) Said them over and over to myself
(K) Moved around and used my fingers to name each item

http://www.ugresearchsci.ucla.edu/projpeers.html

B. Scoring Instructions: Add the number of responses for each letter and enter the total below. The area with the highest number of responses is probably your primary mode of learning. Remember, most people learn through a mixture of all three styles.
Visual (V) = _____ Auditory (A) = _____ Kinesthetic (K) = _____

C. Read through the recommended strategies for using your preferred learning style on the accompanying pages. Highlight 2 or 3 strategies you will use in class, or when completing your assignments. Practice them for the next several weeks. **Type out** those strategies on a separate piece of paper and attach to this sheet when you turn in your assignment.

16

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Learning Styles Quiz Question 1

- When asked to give directions, I:
  - See the actual places in my mind as I say them or prefer to draw them
  - Have no difficulty in giving them verbally
  - Have to point or move my body as I give them

17

Learning Styles Quiz Question 2

- When given written instructions on how to build something, I:
  - Try to put the parts together first and read later
  - Read them silently and try to visualize how the parts will fit together
  - Read them out loud and talk to myself as I put the parts together

18

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Learning Styles Quiz Question 3

- When trying to recall names, I remember:
  - Faces but forget names
  - Names, but forget faces
  - The situation that I met the person other than the person's name or face

19

Example of Teaching the Learning Styles

- Preceptee's first time scanning a new protocol
- Auditory – Provide clear verbal instructions and explanations; talk them through each image needed for the exam
- Visual – Provide the protocol in bullet points and let the learner take notes as you explain the protocol
- Kinesthetic – After an explanation of the protocol, let the learner scan while being walked through each step of the protocol

20

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Learning Styles Reminders

- Learning Styles are not "one size fits all."
- Give time for both parties, the preceptee and preceptor, to observe each other throughout the course of orientation

21

Determine Structure of Orientation Program

- Timeline
- Preceptor(s)
- What constitutes completion or sign-off for exams

22

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Orientation Competence Guide

- Transparent documentation
- System to evaluate each exam
- Parts of the exam
- Requirements to sign-off

23

Orientation Competence Guide Example

Speed of Exam	Quality of Images	Accuracy of Pathology	Accuracy of Reporting

24

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Criteria for Speed of Exam

1. 50% or less of exam complete in allotted time
2. 51-99% of exam completed in allotted time
3. Exam completed in allotted time without report
4. Exam completed in allotted time with report

25

Criteria for Exam Quality

1. Got off protocol or missed images
2. Took all appropriate images; makes 50% or less image optimization
3. Took all appropriate images; makes 51-99% image optimization
4. Gets optimal images

26

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Criteria for Accuracy of Pathology

1. Missed all disease or called disease where none was present
2. Found some disease/missed some disease
3. Found disease but misdiagnosed
4. Identified all disease or negative exam accurately

27

Accuracy of Reporting

1. Preceptor completed the report
2. Completed report with assistance
3. Completed report independently with errors
4. Completed report independently with no errors

28

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Exam Log

Lower Venous Date/Initials		Speed (1-4)	Quality of Images (1-4)	Accuracy (1-4)	Report (1-4)	Comments	Patient Care	Positive
Average								
Positive Avg								

29

Weekly Average Score Sheet

Lower Venous	Speed (+)	Speed Overall	Quality (+)	Quality Overall	Accuracy (+)	Accuracy Overall	Report (+)	Report Overall	Number of (+)
Week 1	3	3.25	3	3	3	3.8	2	2	1
Week 2	3	3.50	3	3.25	3	3.8	2.5	2.5	2
Week 3	3	3.3	3	3.3	4	4	3.0	3.5	2
Week 4	3.5	3.5	3.5	3.5	3.8	3.8	3.25	3.5	4
Week 5	3.5	3.5	3.75	3.75	3.5	3.8	3.25	3.5	6
Week 6	3.75	3.75	3.85	3.85	4	3.5	3.5	3.75	2

30

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Setting the Scene Pre-orientation

- Preparations for First Day
- Get documents ready
- Manager send welcome letter
- Preceptor text preceptee week before

31

Orientation Day One

- Introductions
- Tour of the facility
- Policies and Procedures
- Get to Know You Worksheet

32

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Teaching Styles Throughout Orientation

- See One Do One
- Back scanning
- Scan one side then let preceptee scan the other side
- Preceptee perform entire scan with you in room
- Preceptee perform part of exam and preceptor come in part way
- Preceptee perform entire exam with preceptor out of the room

33

Debriefing

- Immediate feedback
  - Positive feedback with opportunities for improvement
  - Keep mistakes confidential between preceptee and preceptor
  - Ask questions to test their knowledge
- Weekly (Routine) meetings with preceptee and preceptor
- Develop a Plan

34

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Weekly Check-in Sheet

1. Positive observations
2. Areas of improvement
3. Questions/Concerns
4. Goals for the next week

35

Objective Two: Support for Preceptors

- Identify approaches that help support preceptors and reduce burnout.

36

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Challenges for Preceptors

- Are Preceptors ready?
- Is the department set up to handle patient load and learners?
- Communication with school
- Preceptor Burnout

37

Develop a Preceptor Program

- Reasons to build a program
  - Improve patient care
  - Improve staff satisfaction
  - Improve preceptee confidence
- Structure
  - Establish how many years of experience needed before precepting
  - Precepting classes
- Case studies

38

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Supporting Preceptors

- Providing adequate resources
- Meaningful recognition-professional, financial, personal
- Meeting for preceptors, mentors, and management

39

Preceptor Competencies

- Preceptor Policy
- Timeline to become preceptor
- Classes
  - BECOME Method
  - LinkedIn resources for coaching

40

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

BECOME Method

- Strategies to help positively impact a preceptee

- **B**ehavioral
- **E**motive
- **C**ognitive
- **O**rganizational
- **M**odeling
- **E**licit

41

Behavior Strategies

- Aid preceptee in modifying behaviors to create success
  - Learning preferences
  - Orientation plan
- Set expectations early
- Mistakes are used for learning

42

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Emotive Strategies

- Generates emotions or feelings that can affect the preceptee's success
- Positive or negative
- Empathize with orientee
- Encourage and support

43

Cognitive Strategies

- Assessing preceptee's knowledge
- Give opportunities for critical thinking
- Assess preceptee's progress
- Give preceptee's the opportunities to observe others

44

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Organizational Strategies

- Prioritizing tasks, be prepared for patient to arrive
- Time management
- Utilization of equipment
- Review protocols prior to performing exams

45

Modeling Strategies

- Mimicking preceptor behavior
- Use a consistent approach when possible
- Hand-off information for other preceptors

46

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Elicit Strategies

- Preceptor seeking help
- Mentors for preceptors
- Set aside time for preceptors to collaborate

47

Objective Three: Recognize Generational Gaps and Strategies That May Create Challenges in Teaching

- Every generation is equally valuable
- Recognize the strength of each generation
- Each generation needs the space to excel

48

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Generation Percentage in the Workforce[13]

- The workforce is comprised of several different generations.

- Baby Boomers (15%)
  - Decreasing
- Gen X (31%)
- Millennials (36%)
  - Make up the largest amount in the workforce
- Gen Z (18%)
  - Increasing

49

Baby Boomers[4]

- Age 62-80
- Most work experience (life)
- Members on boards
- Vote
- Believe in working hard and paying your dues; Strong work ethic
- Follow policies and procedures
- Get to work on time or early

50

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Baby Boomers[4] cont.

- Core Values:
  - Cooperation
  - Personal growth
  - Fairness
  - Respect hierarchy & authority and expect respect from others
- Professional Orientation:
  - Loyal
  - Ambitious
  - Success driven
  - Competitive in work situations
- Technology:
  - Adopted later in life

51

Generation X

- Age 46-61
- Skeptical (Actions speak louder than words)
- Love back-up or scenario plans
- Most loyal
- Being pulled in 3 ways (kids-career-parents)
- Bridge to all generations

52

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Generation X cont.

- Core Values:
  - Comfortable with diversity
  - Self-reliant and independent
  - Fun
- Professional Orientation:
  - Likes feedback
  - Flexibility
  - Work-life balance
- Technology:
  - First personal computers

53

Millennials

- Age 30-45
- Split into two generations
  - They choose one way to go and cannot relate to the other group
- Delayed adulthood
- Confuse competency with mastering
- Need group interaction and enjoy collaboration
- Not tech savvy but tech dependent

54

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Millennials cont.

- Core Values:
  - Comfortable with diversity
  - Health conscious
  - Optimistic
  - Shares feelings
- Professional Orientation:
  - Values achievement and praise
  - Likes teamwork
  - Flexibility
  - Career development
- Technology:
  - Internet
  - Hand-held devices

55

Generation Z

- Age 14-29
- Want stability in an employer
  - Sometimes lack motivation and loyalty to employers
  - Seeking dream career
- Believe they will not be able to retire
- Create emergency money accounts
- Trust social media
- Believe in diversity
- Throwback generation to baby boomer

56

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Generation Z cont.

- Core Values:
  - Care about others and humanity
  - Diversity
- Professional Orientation:
  - Realistic expectations rather than theory
  - Collaboration
  - Flexibility
  - Access to information
  - Multitasking
- Technology:
  - Don't know life without technology
  - Handheld devices are the norm

57

Communication Styles

- Baby Boomers: Mostly face-to-face, telephone conversations and emails
- Generation X: Mostly email
- Millennials: Older members use face-to-face and computer mediated communication, Younger members use mainly digital technologies[4]
- Generation Z: Mostly instant messaging over emails

58

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Communication Styles cont.

- Overall, "A good communicator will show attentive listening, interpersonal concern, emotional expressiveness, confidence and composure, which are very difficult to attain in CMC." (computer-mediated communication)[4]
- Dangerous phrase is “we’ve always done it this way”
- Be prepared to back up your thinking when questioned but also be open to new ideas.

59

Understand Generational Learning Preferences

- Baby Boomers: face to face instruction, use books/manuals
- Gen X: hands on learning, use blended classroom/internet, use realistic approaches
- Millennials: integrate technology in learning, visual learners, collaborative projects
- Gen Z: integrate technology in learning, micro learning not lectures, self-paced, role playing

60

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Learning Preference Reminders

- Don't put individuals in a box
- Generation or preference overlap
  - People on cusps of other generations may have tendencies of the next generation
- Example: A millennial that is 44-45 may have tendencies that relate more to a Generation X

61

How to Work With Each Generation

- Develop an onboarding strategy that relates to each generation
  - Example: Baby Boomers prefer emails and Gen Z prefer text messages. Find a way that you are reaching both.
- Provide timely goals and specific examples of expected performance throughout the orientation
  - Reflect on any precepting gaps made during orientation and make changes moving forward
- Quick hit feedback
  - Avoid using words such as "one time", "always", and "never"
- Understand how each generation handles situations

62

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Conclusion

- Importance of developing a structured orientation
- Value in preceptor program
- Understanding generational learning differences

- "Learning is never done. It's a continuous process of growth and development." Carol S. Dweck

63

Citations

1. Ulrich BT. Mastering precepting. Indianapolis, IN: Sigma Theta Tau International; 2024.
2. Kharb P, Samanta PP, Jindal M, et al. The Learning Styles and the Preferred Teaching—Learning Strategies of First Year Medical Students. Journal of Clinical and Diagnostic Research : JCDR [Internet]. 2013 [cited 2026 Jul 31];7(6):1089.
3. J. Beartice. Learning to Study Through Critical Thinking. Mcgraw-Hill (Tx); 1995.
4. Venter E. Bridging the communication gap between Generation Y and the Baby Boomer generation. International Journal of Adolescence and Youth [Internet]. 2017;22(4):497–507.
5. Downs H. Bridging the Gap: How the Generations Communicate. Concordia Journal of Communication Research [Internet]. 2019;6:6, 17.
6. Phillips R, Alsop S. Developing preceptorship programmes by exploring the needs of newly qualified sonographers through the lens of experienced ultrasound preceptors. Ultrasound [Internet]. 2024;33(1):4–11.
7. Balthazaar SJT, Bhutto ST, Lam J. Ongoing Challenges in Clinical Precepting. Canadian Journal of Medical Sonography [Internet]. 2025;16(2):29–33.

64

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.

Citations

8. Davis SP, Facilitators of and Barriers to Effective Preceptorships for Pre-licensure Nursing Students: What Nursing Faculty Need to Know. SAGE Open Nursing [Internet]. 2024;10:1.

9. Chan GK, Baker NR, Cooke C, et al. The importance, challenges, and proposed solutions for preceptors to educate the nursing workforce. Journal of Professional Nursing [Internet]. 2025;57:75–84.

10. Modic MB, Harris R. Masterful Precepting. Journal for Nurses in Staff Development (JNSD) [Internet]. 2007;23(1):1–9.

11. Tussing TE, Chipps E, Tornwall J. Generational Differences in the Nursing Workforce. Nurse Leader [Internet]. 2024;22(5):602–608.

12. Burnworth MJ, Pettinger TK, Medina MS, et al. Preceptor tips for navigating generational differences with introductory and advanced pharmacy practice experience students. Pharm Pract (Granada) [Internet]. 2020;18(4):2176.

13. Foley V, Myrick F, Yonge O. Preceptorship and Affirmation in the Intergenerational World of Nursing Practice. Nursing Research and Practice [Internet]. 2012;2012:1–10.

14. Kyle DeMaria (ed.), Ian Page, Kevin Reuss, and Zoë Zemper, "Changes in the U.S. Labor Supply," Trendlines, U.S. Department of Labor Employment and Training Administration, August 2024.

© Copyright. Society of Diagnostic Medical Sonography. All Rights Reserved.