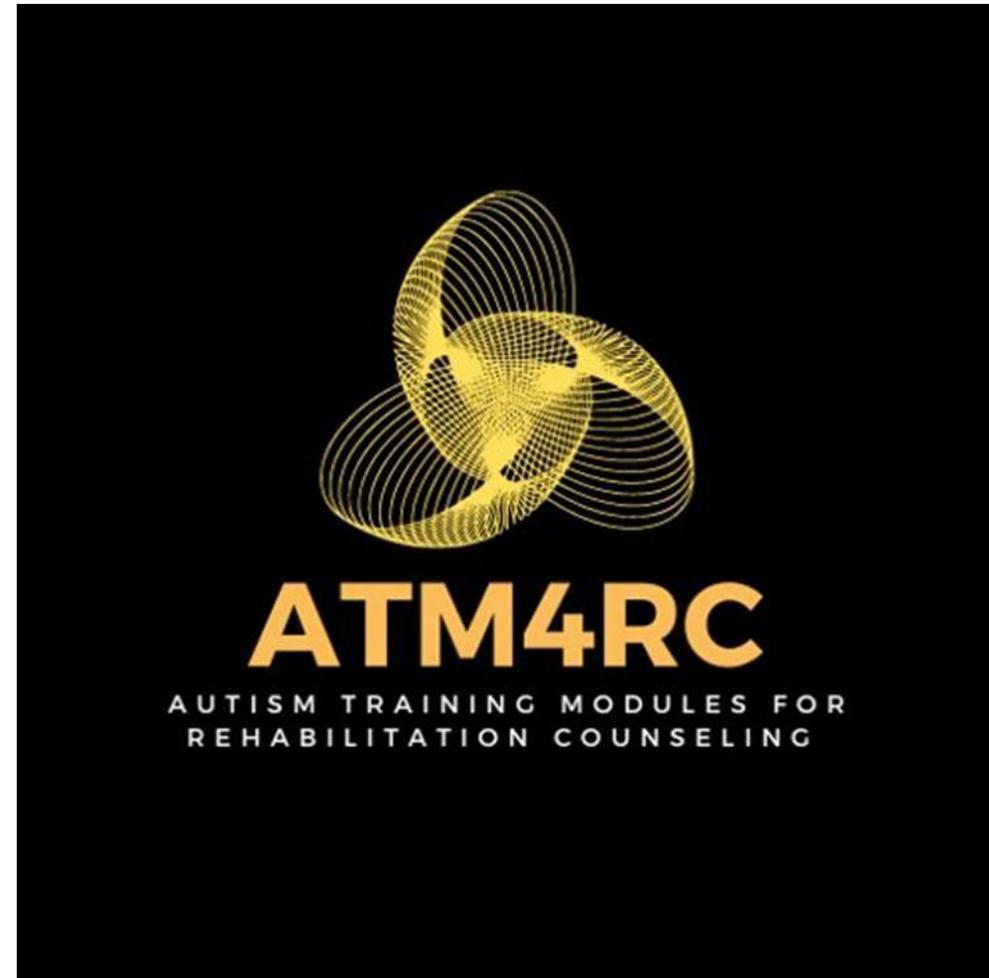


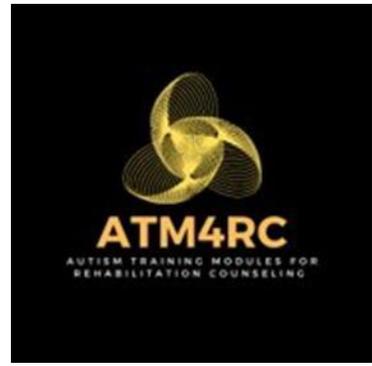
Use of Modeling with Autistic Persons

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Module Objectives



By the end of the module, participants will be able to:

1. Define what modeling is and why it is needed.
2. Identify the 3 needed pre-requisite skills
3. Describe two basic types of modeling
4. Identify the two model procedures
5. Identify steps needed to implement each modeling procedure, and implement.

Modeling: An Introduction (1 of 2)



- Modeling is a form of observational learning (Kearney, 2015)
 - Often in job sites modeling is a regular part of training, whether the new employee is autistic or not, someone demonstrates the actions that are part of a skill, and the new employee performs that skill based on watching the trainer
 - Modeling occurs in natural settings, such as imitating friends on a playground

Modeling: An Introduction (2 of 2)



- Modeling is a form of observational learning (Kearney, 2015)
 - Modeling may also occur through watching television, YouTube, or other video or audio resources, or through picture instruction showing step-by-step procedures
 - In work with autistic people, it is often used to teach social or other unwritten skills that are not typically explicitly taught in traditional learning environments. And done more explicitly/broken into more steps.

Modeling: an Evidence-based Practice For Persons with Autism (1 of 2)



- Modeling involves having a trainer, teacher, family member, etc, performing a target skill or behavior to teach the skill/behavior and its component parts:
- this is often prefaced with “watch this”
- and accompanied by a phrase such as “do this”
- and followed by a phrase such as “your turn”

(Hume et al., 2023; Sam, A., & AFIRM Team, 2016).

Modeling: an Evidence-based Practice For Persons with Autism (2 of 2)



- Modeling is used to teach and improve a myriad of skills including:
 - social, communication, joint attention, school readiness, play, adaptive/self-help, motor, vocational, and academic outcomes
 - Modeling typically used with reinforcement and prompting
- (Hume et al., 2023; Sam, A., & AFIRM Team. 2016).

Benefits of Using Modeling



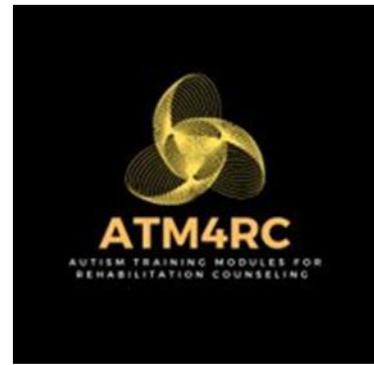
- Research supports modeling's ability to increase successful performance of new skill/behavior and promotes generalization across settings and successful maintenance (long term use of the taught skill)
- Modeling is free and easy to implement.
- It typically provides learners with both a visual and verbal example of what they will be expected to do.
- Is a good fit for persons with visual / pattern thinking, which are common in Autistic people



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(Hume et al., 2023; Sam, A., & AFIRM Team; 2016)

Modeling Overview



This is a very short video discussing modeling when teaching skills

https://youtu.be/Mhvq88_VP1s?si=ot8g-z3GWEUCW4k0

Essential Skills for Learning through Modeling (1 of 2)



Can the individual:

1. Copy, mirror or imitate other's actions
2. Already has some of the component skills for the task to be taught through modeling
3. Sustain attention long enough to watch the model perform the target skill

(AFIRM, 2016; Bellini & Akullian, 2007; Cox & AFIRM Team, 2018; Geiger & LeBlanc, 2010; Hume et al., 2023 Sam & AFIRM, 2016)

Two Basic Types of Modeling (1 of 2)



In vivo (live modeling)

- Occurs in-person; the individual watches someone complete a task/perform a behavior
- This can be an instructor, parent, peer model, job coach, etc
- Aided language stimulation (ALS) adds use of augmented communication devices
- Followed by a prompt to engage in the taught skill



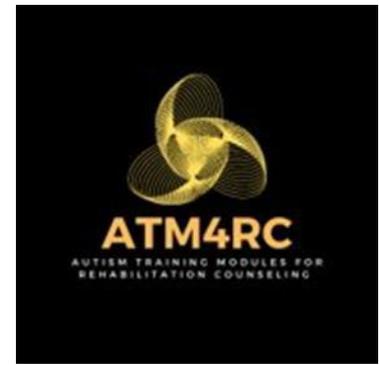
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(Bellini & Akullian, 2007; Cox & AFIRM Team, 2018; Geiger & LeBlanc, 2010; Hume et al., 2023; Sam & AFIRM, 2016)

Two Basic Types of Modeling (2 of 2)

Videomodeling

- Individual views a video of someone modeling a skill
- Subtype- self-modeling- where individual performs a skill and the errors are edited out, so they may observe themselves performing a skills successfully
- Followed by a prompt to engage in the taught skill
- To learn more about In-vivo and Video-modeling read:
 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2884351/>



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(AFIRM, 2018; Bellini, 2007; Geiger & LeBlanc, 2010)

Essential Skills for Learning through Modeling (2 of 2)



1. If the client appears to have difficulty with imitation, imitation can at times be taught by the instructor imitating the client
2. Break the skill into its component parts (task analysis) and assess if the client already has any of the component skills
3. Observe client's ability to sustain attention—how long can they focus on a task or situation—this will help determine how long they may be able to observe a model performing a task

(Cox & AFIRM Team, 2018; LaCava, 2008)

Two Model Procedures



- Model as a prime:
 - Watch model
 - Model acts out/does skill/behavior/task
 - Individual imitates model
- Model as a prompt:
 - Instruct individual to complete a task
 - If they don't, model behavior to prompt task completion

(AFIRM, 2016; Sam & AFIRM, 2016)

Using Peers as Models



- Pick a peer model (or better yet let your client pick a model)
 - That they like/respect
 - That is similar to them physically when possible
- Provide training to the peer
 - For more on peer mediated interventions and peer training visit:
 - <https://ebip.vkcsites.org/peer-training/>



(AFIRM, 2016; Sam & AFIRM, 2016)

Determining Prime or Prompt



This short video shows Martha Stewart showing an adult how to fold a shirt – observe and determine if she is using modeling as a prime or as a prompt.

<https://youtu.be/Jvcuy4k17DI?si=rIJf7578cJQBMutd>



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Video Modeling (1 of 2)

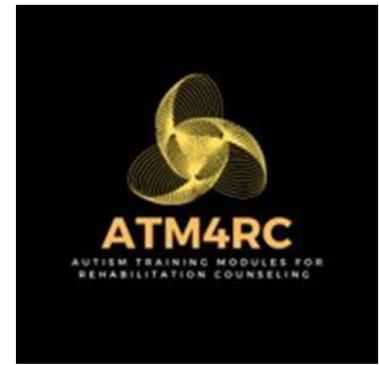


- There are 4 types of video modeling
 - Basic- Watching someone complete the task to be learned
 - Self- Modeling- watching yourself complete a task successfully
 - Prompting- Videos for each step of a skill that serve as prompts
 - Point of view- Video shot “through the eyes” of a person completing a skill (so the client sees the skill as though they are completing it)

(LaCava, 2008)

- For a employment skills focused example of video modeling see:
<https://www.youtube.com/watch?v=HJrefy720aY>

Steps for Implementing Modeling



- Please review the following documents, developed by the Autism Focused Intervention Resources and Models at UNC, with step-by-step examples and instructions on implementing prompting:
 - <https://files.eric.ed.gov/fulltext/ED595336.pdf> (AFIRM, 2016)
 - <https://files.eric.ed.gov/fulltext/ED605910.pdf> (AFIRM, 2018)

Video Modeling (2 of 2)



- To learn more about Video Modeling v. Video Prompting read
 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7070110/>
- Review the following document to learn the basics of Video Modeling and its implementation:
 - https://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/imce/documents/VideoModeling_Complete.pdf



Data Collection

- Assess and document baseline skills through observation and record results
 - Which baseline skills does individual possess
 - Does individual have ability to imitate without further instruction on how to do so (see slide 9)
- Modeling implementation Document task, prompts required, type of prompt, successful attempts
 - Adjust and fade as needed as demonstrated through data (see modules on prompting and reinforcement)
- For sample data sheets see AFIRM (2016 & 2018) linked on slide 18

(AFIRM, 2016; Bellini, 2007; Cox & AFIRM Team, 2018; Geiger & LeBlanc, 2010; Hume et al., 2023 Sam & AFIRM, 2016)

Self Questioning Activity



In looking at this picture of dirty dishes, explain how you would determine if the learner is ready to learn how to wash them through modeling.

What are the three pre-requisite skills needed, and how will the instructor assess those skills?



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Case Study



Alan is a 25-year-old man with Autism. He has accepted a job as a cashier and will receive job coaching to increase success.

Complete a task analysis on cashiering. Which of these skills can be modeled?

If you have not yet done the task analysis module either complete it or visit <https://nlegault.ca/2021/12/14/how-to-do-a-training-task-analysis/> (Legault, 2021) for an example/instructions

Activity: Creating a Modeling Plan for Autistic Adults (1 of 2)



- Purpose: To create a modeling plan for autistic adults.
- Description: Using the “steps for implementing modeling ” document, you will create, implement, and evaluate a plan for one of your autistic clients.
- Directions:
 - Next slide

Activity: Creating a Modeling Plan for Autistic Adults (2 of 2)



- Directions:

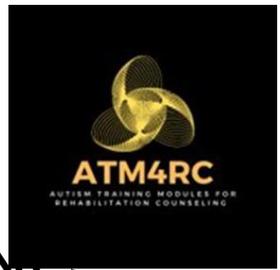
1. Select one of your autistic clients for whom you think modeling will improve their performance at work or home and identify the skill or behavior.
2. Identify the reinforcers that will enhance your client's workplace and independent living skills/performance and identify the best modeling procedure.
3. Using the “steps for implementing modeling” document, create, implement, and monitor implementation of the modeling plan you created.
4. Evaluate the overall efficacy of the modeling plan you created.



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Additional Resources



- Autism Focused Intervention Resources (AFIRM) Modeling Module: This interactive module provides in-depth training on videomodeling for autistic persons. <http://affirm.fpg.unc.edu/modeling>
- Autism Focused Intervention Resources (AFIRM) Video Modeling Module: This interactive module provides in-depth training on videomodeling for autistic persons. <https://afirm.fpg.unc.edu/video-modeling>
- Alkinj, I., Pereira, A., & Santos, P. (2022). The effects of an educational program based on modeling and social stories on improvements in the social skills of students with autism. *Heliyon*, 8(5), e09289. <https://doi.org/10.1016/j.heliyon.2022.e09289>
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