



Principles of Adult Learning that Influence Adoption of Reminder Apps

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AGRABILITY NATIONAL TRAINING PROGRAM
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Learning Objectives:

Learners will...

1. Relate at least 2 elements from the informational processing model to in relation to assistive technology
2. Compare 3 learning theories to the demands of learning assistive tech.
3. Analyze at least 2 peer-reviewed articles about assistive technology adoption and/or abandonment
4. Review at least 3 no-cost reminder applications for cellular devices to determine the strengths and weaknesses of each

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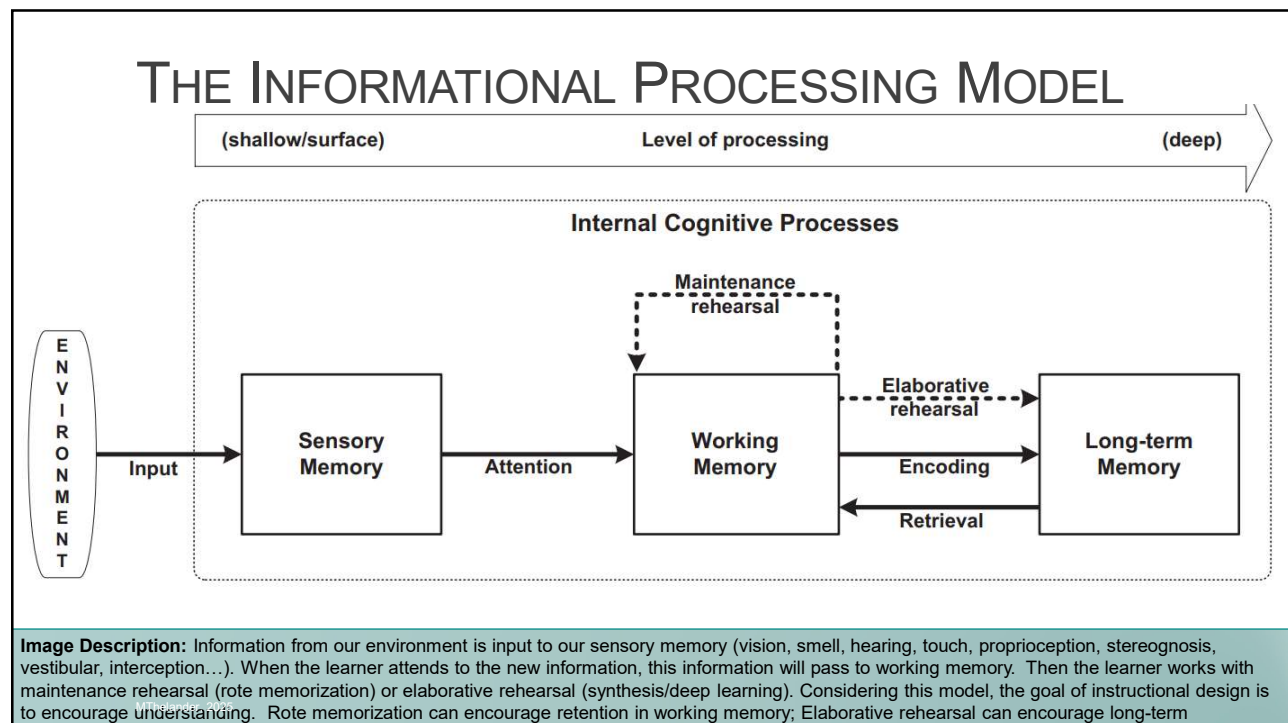
How do people learn

THE INFORMATION PROCESSING MODEL

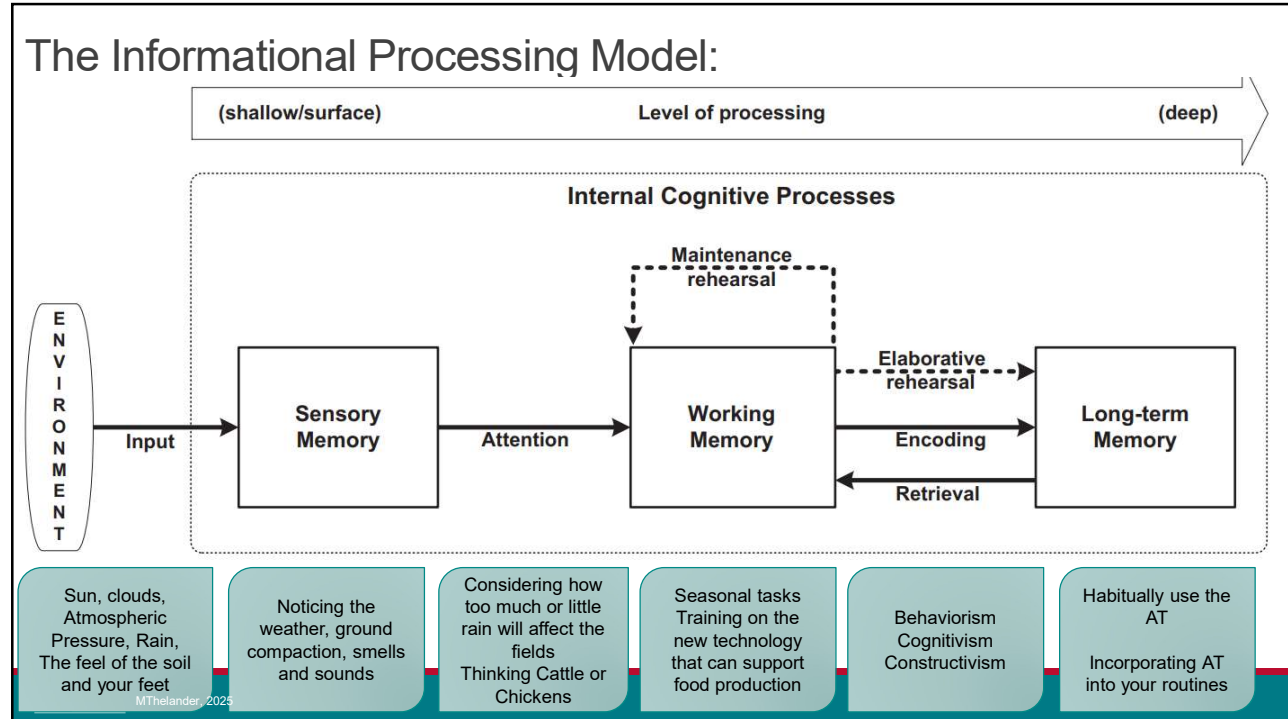
Khalil, M. K., & Elkhider, I. A. (2016). Applying learning theories and instructional design models for effective instruction. *Advances in Physiology Education*, 40(2), 147–156. <https://doi.org/10.1152/advan.00138.2015>

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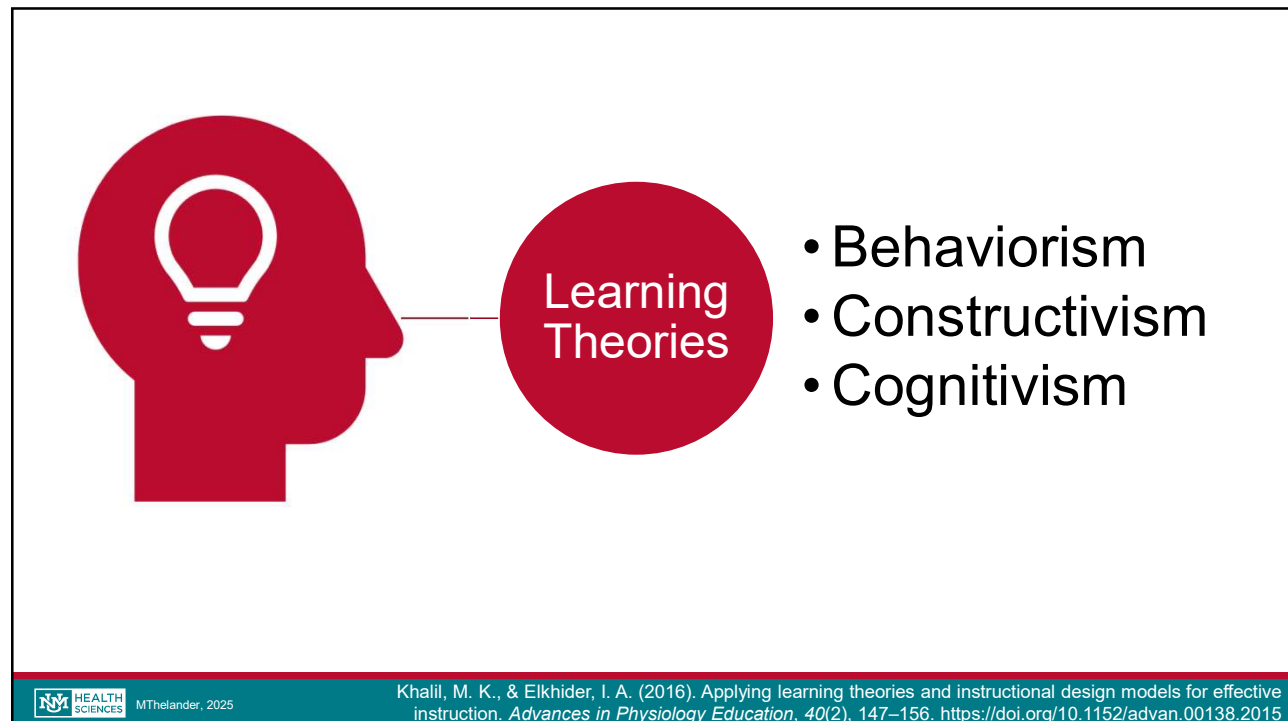
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Behaviorism

Definition of Learning	<ul style="list-style-type: none"> • the acquisition of new behavior
Learner's Role	<ul style="list-style-type: none"> • Passive Participants receive positive reinforcement when the skill is correct
Strategy	<ul style="list-style-type: none"> • Competency-based education • Skill Development
Learning Example	<ul style="list-style-type: none"> • Demonstration/Return-demonstration • Multiplication tables/ CPR
Assessment Related to Food Production	<ul style="list-style-type: none"> • Is the seed planted to the right depth? • Are the starts transplanted correctly? • Are the hooves trimmed correctly? • Was every lamb vaccinated at the right time?

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Constructivism

Definition of Learning	<ul style="list-style-type: none"> • The search for meaning as defined by a group
Learner's Role	<ul style="list-style-type: none"> • Active Participants
Strategy	<ul style="list-style-type: none"> • Collaborative construction of knowledge
Learning Example	<ul style="list-style-type: none"> • Group Projects • Support Groups • Collaborative AT selection after multiple trials
Assessment Related to Food Production	<ul style="list-style-type: none"> • Analyzing the corn leaf color, or the way the heifer is bellowing • The Crops and/or Livestock and the food producer are (healthy, producing yields, demonstrating signs of difficulty)

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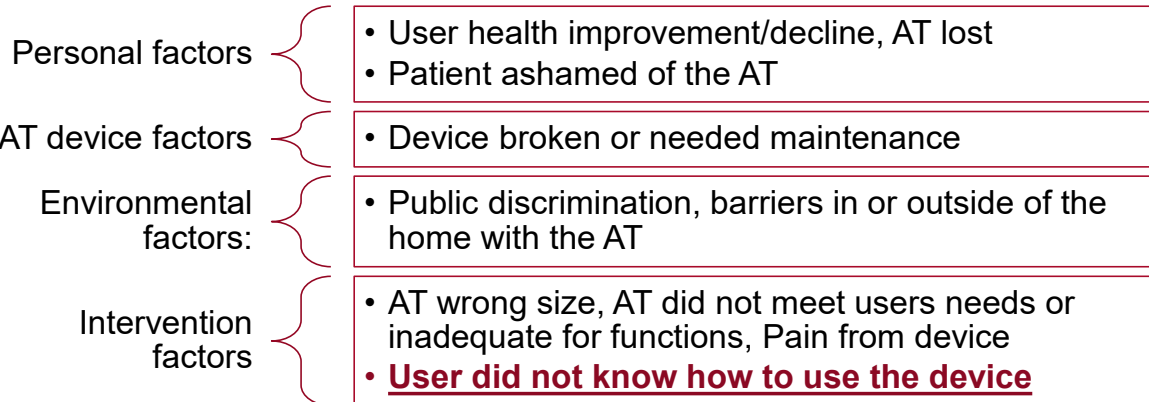
Cognitivism

Definition of Learning	<ul style="list-style-type: none"> • The acquisition and reorganization of cognitive structures
Learner's Role	<ul style="list-style-type: none"> • Active Participants
Strategy	<ul style="list-style-type: none"> • Multiple Repetitions (~10,000) • Reflective Thinking • Mental Rehearsal
Learning Example	<ul style="list-style-type: none"> • Problem Solving (applying AT to different situations) • Trouble shooting and reconstructing equipment
Assessment Related to Food Production	<ul style="list-style-type: none"> • Self review • Analyzing yields to make the plan for the next year

AT Adoption/Abandonment

N = 900 face-to-face interviews with Questions based on WHO ICF framework

AT is abandoned at least 20% of the time



André T. Sugawara, Vinícius D. Ramos, Fábio M. Alfieri & Linamara R. Battistella (2018) Abandonment of assistive products: assessing abandonment levels and factors that impact on it, Disability and Rehabilitation: Assistive Technology, 13:7, 716-723, DOI: 10.1080/17483107.2018.1425748

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Conclusions (Sugawara et al. 2018)

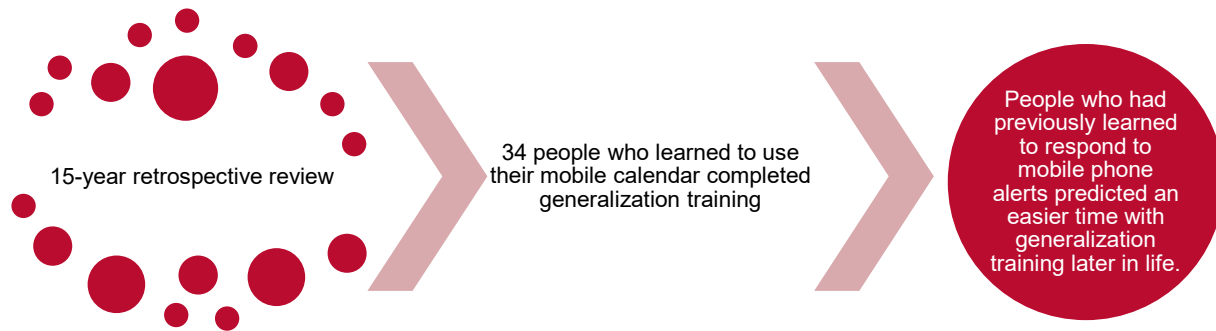
Multiple factors
(personal,
environmental,
social) should drive
AT provision

AT should be re-
used, when possible,
to foster
environmental
stewardship

Training and follow-up
promote safe, effective
use

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Learn Early to Use Later



Vasquez, B. P., Cretu, A., Max, A., & Moscovitch, M. (2022). Early mobile app training proficiency predicts how well memory-impaired individuals learn to use digital memory aids in the real world. *Neuropsychological Rehabilitation*, 33(8), 1411–1429. <https://doi.org/10.1080/09602011.2022.2107020>

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The Assistive Technology in your Pocket

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What SMART Phones can do for Memory

Memory Off-Loading

Alarms	Calendar	Reminders	Notes/Lists	Camera
<ul style="list-style-type: none"> • Take Medications • Audio schedules • Tags <ul style="list-style-type: none"> • AirTags • Samsung tags • Tiles 	<ul style="list-style-type: none"> • Appointments • Deadlines • Bill Payment • Planting • Vaccinating • Birthdays 	<ul style="list-style-type: none"> • “Remind me to _____” <ul style="list-style-type: none"> • Pick up Rx • Add • Notes about your ideas 	<ul style="list-style-type: none"> • Shopping • Project • Meeting notes • People’s Names • Searchable with Control+F or Command+F 	<ul style="list-style-type: none"> • Your parking Place • Serial number on devices • People on your contact lists

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Ball, B. H., Peper, P., & Robison, M. K. (2025). Reminders eliminate age-related declines in prospective memory. *Psychology and aging*, 40(1), 54–65. - with contributions by Mary Thelander, MOT OTR/L ATP

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REMINDER APPS COMPARISON					
Name	Free/Paid	No Internet	Phone & Desktop	Intuitive	Notes
Google +Tasks +Keep	Free with Google Account	✓	Yes (requires internet to sync)	★★★★★	↑Voice Command with Google Assistant ↑Search with Control+F
iOS +Reminders +Apple Notes	Free with Apple Devices	✓	Yes (requires internet to sync)	? 😊	↑ Voice Command with Siri
Alexa (reminders, notes and routines built in)	Free with A-products Free Download to Windows	✓ Wifi Required	Yes on A-products Some function on Windows	? ☹️	↑ Wifi does not require internet ↓Function on windows is limited
Tasks (app)	Free Basic	✓	With Paid Service	★★★★	↓ Lots of Notifications
Don't Forget the Milk	Free Basic	✓	With Paid Service	★★★	↓ Will only do phone notifications with paid service
Paper Note pad	Minimal	✓	Nope	★★★★★	↑Compostable

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Best Practices for Adopting Cognitive AT

Learning

- Sensory memory, attention & working memory require elaborative rehearsal to make a new memory
- Digital skills you build now can support you in the future
- Your phones can off load a lot of memory tasks

Behaviorism

- Focus on one skill at a time
- Reward yourself when you use it
- It only works when you use it
- Garbage In → ← Garbage Out

Constructivism

- Do multiple trials of different AT
- Do trials with friends/family

Cognitivism

- Reflect on your needs to select the right AT
- Mental rehearsal of how to use it
- 10,000 Repetitions to change brain structures



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Thank you

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