



University of  
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# Patient/family education

A different way of thinking.  
The lens of cognitive Learning Principles

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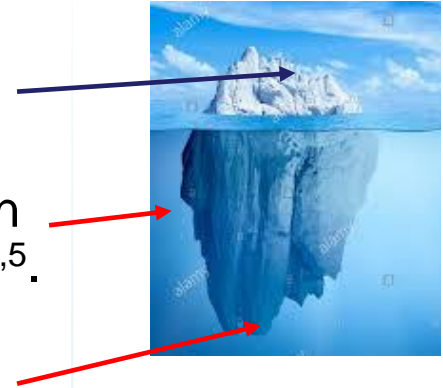
# Disclosures

- No conflicts of interest
- Honorariums –
  - HP educational talks for Ego Pharmaceutical
  - Project Advisory Group for Eczema Support Australia



# ..gap in HPs Patient education practice

- Patient education: key role all HPs but...
- Literature dominated by teaching strategies, learning styles, modes, new interventions – measure QoL, obj. clinical outcomes, health literacy; communication - often *assume learning* occurred<sup>1-3</sup> Limited longterm success<sup>4,5</sup>.
- Qualitative studies- helpful but highlight gap
- *Few descriptions in guidelines of 'how people learn' i.e. transform information into knowledge they can use meaningfully in various contexts<sup>1-3</sup> – key to concordance Rx<sup>5-10</sup>*



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The invisible nature of learning: Patient education in nursing

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# Patient education (PE) defined

- ..consciously constructed opportunities for **communication** and **learning** that improve **health literacy, knowledge** and enable **development of life-skills**, conducive to individual and community health<sup>2</sup>.
- Health education, in **partnership with the patient and family**, must also foster the **motivation, skills, behaviour changes and confidence (self-efficacy)** necessary to **take action to improve health**<sup>1-5</sup>
- = *Therapeutic patient education (TPE)*<sup>5</sup>



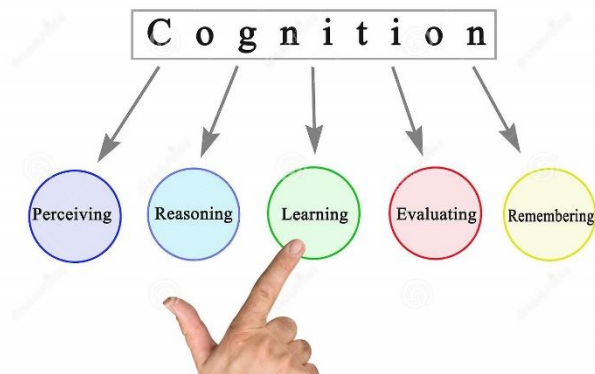
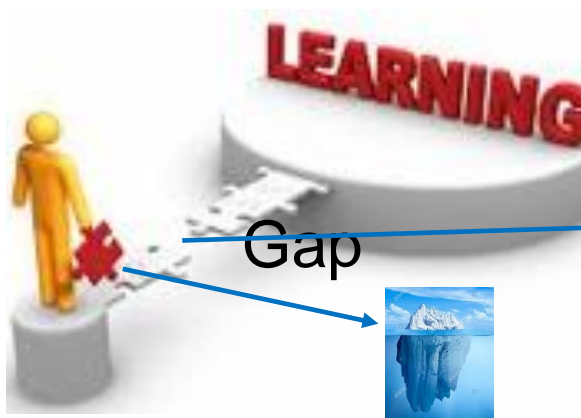


# At follow-up: poor progress-blame on patient

- Poor adherence, compliance - patient fault<sup>1,2-6</sup> Dr-tries different interventions- limited success long term<sup>2,4-8</sup>
- What's missing in approach? *John's eczema school- PLUS*
- **HPs** using **cognitive Learning Principles** in PE:
- these **enable** patients'/family's *thinking, reasoning; problem-solving skills*<sup>8,9</sup>



# Aren't we doing that?



Knowles Adult LPs<sup>10</sup>

motivation  
self~concept  
need~to~know  
readiness  
orientation

Do your guidelines describe ways HPs can assist people to *think, reason & problem-solve* to work toward self-care and *make decisions*?<sup>5-9</sup>

*Need to view LPs through new lens.....*



# What are cognitive Learning Principles (LPs)?

- Series of *interactive, cyclic processes* help educators to guide learners to *encode and convert information, gain, store, retrieve knowledge*.
- Learners *connects to existing knowledge* & through *processes of experience, instruction*, identify how *new & pre-existing knowledge* can be *used & develop skills in doing this*.
- The learner becomes confident to think, reason & problem-solve - essential to *decision-making skills* if they are to build strategies to *achieve complex, meaningful tasks & build confidence*.<sup>5,6,9,11</sup>



*Analogy: How Did you learn to Drive?*



## Scoping Review

- Learning – complex, diverse interpretations of descriptive terms. HPs omitted articulating how they helped people to learn. Therefore, unclear to readers. Dimensions of Learning (DoL) Framework<sup>11</sup> helped codify data. Knowledge gap: Explore, identify how nurses perceive & use LPs in parent education practice<sup>2</sup>.

## PhD Action Research

- Explored, described, mapped how nurses use LPS in parent education practice + those LPs important to parents
- Results aligned with existing educational 'DoL' framework
- Participants created resource-
- to guide practice - series of cues based on DoL.
- Not prescriptive any condition

## Outcomes

- Participants created resource- cues to guide nurses' practice AND parents to see how they needed to learn about their condition and Rx
- Not prescriptive; - cues based on DoL. Suited to use for any condition<sup>13</sup>



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Heliyon

journal homepage: [www.cell.com/heliyon](http://www.cell.com/heliyon)



Review article

How nurses and other health professionals use learning principles in parent education practice: A scoping review of the literature



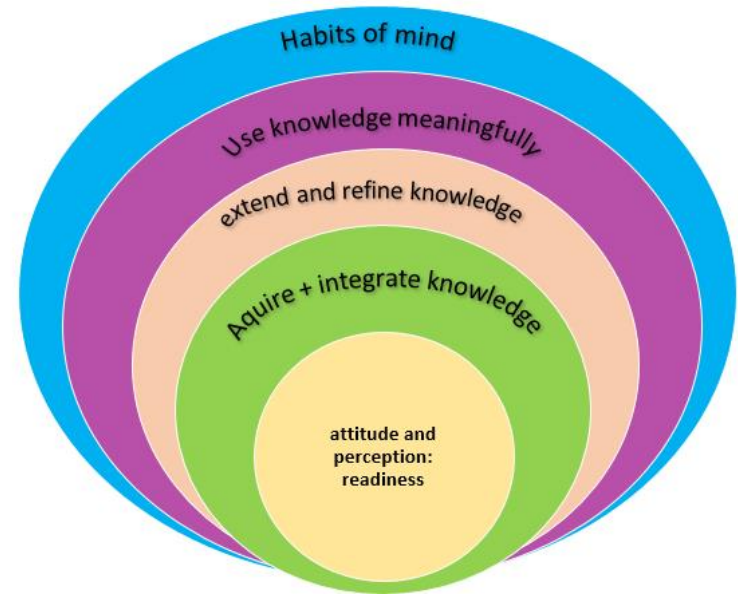
Deryn Thompson<sup>a,\*</sup>, Matthew Leach<sup>b</sup>, Colleen Smith<sup>c</sup>, Jennifer Fereday<sup>d</sup>, Esther May<sup>e</sup>



# Dimensions of Learning Framework<sup>11</sup>



1. Attitude & perception
2. Acquire & integrate knowledge
3. Extend and refine the knowledge
4. Apply the knowledge meaningfully  
(problem solving & decision making)
5. Become habit of mind



# Using cognitive LPs

e.g. eczema

## Attitude & perception

? in good place mentally for PE? New diagnosis, psycho-social, financial stressors? No Cure, poor experiences with HPs before? Conflicting advice, no explanation or demos? What has not worked? TCS phobia? What do they want? HP must listen

## Acquire & integrate Knowledge *(thinking & reasoning)*



**Declarative knowledge** facts about skin, dry + itchy, barrier issues, brick wall analogy. What flare control creams do, why use Rx. When. Triggers Illness, teething & triggers- not pt's/family's failure.  
**Procedural knowledge** demonstration application, emollient, **TCS** - show FTU, step through care plan, pts practice, refine at RV, adapt if needed.

## Extend and refine the knowledge *(thinking; reasoning some problem-solving)*

Pt/family continue to execute care plan, At RV how did it go? Hated ointment/wet wraps: work with pt on solutions. Pt becoming confident to monitor symptoms, discern skin changes. Praise, helps motivation, value- pt sees positive changes in skin, outcomes, more sleep, less itch

# Using cognitive LPs (cont)

Apply the knowledge  
meaningfully

*(thinking, reasoning, problem-solving  
skills + make confident decisions)*

Fine tune skills, persists with Rx, adapted Rx when pt ill & eczema flared, praise from HP, as persevered, developing resilience. Pt can discern + reject mis-information. Provide basic scenarios, pt can answer what they will do: Reflects pts's thinking, reasoning, problem solving skills. Confident to persevere. Can explain what they do + why to others

Become habit of mind

*(confident, capable  
master management)*

Care becomes second nature. Can adapt care if flares with confidence and capability. Understands why. Knows evidence-based care, reject mis-information, good critical thinker! 'knows what to do, when, why and how'.



# Resource: HPs' page

## Dimensions of Learning 1

- **DoL 1: Attitudes & Perceptions**  
Safe & secure environment. Learner feels valued, listened to, ready to learn. The learning is worthwhile, accessible not overwhelming. Recognise life stressors affect learning
- **DoL 2: Acquire & Integrate Knowledge**  
Declarative knowledge – connect with what is already known: facts. Learner must construct meaning, organise knowledge & store into long-term memory for use later, then draw it out.  
Procedural knowledge – construct model, shape process & internalise into long-term memory.
- **DoL 3: Extend & Refine Knowledge.**  
Make deeper connections to consolidate knowledge. Develop concepts out of facts & strategies out of procedures by looking at things differently.  
Procedural knowledge – construct model, shape process & internalise into long-term memory.
- **DoL 4: Using Knowledge Meaningfully.**  
Further enhance knowledge by using it in a meaningful & relevant context – make decisions, solve problems, try some new ideas.
- **DoL 5: Productive Habits of Mind.**  
Critical thinking – accuracy, clarity, open-mindedness.  
Creative thinking – perseverance, look at things differently.  
Self-regulation, empowerment – monitor own thinking, plan. Adjust care when needed

## Nursing Context / Clinical Situation

- Learning works best when learner feels valued, safe & listened to. What is to be learned must be meaningful & relevant presented in plain language & no jargon. Parent & family must feel learning is possible. Nurse, parent & family draw on each other's expertise on the child & care as needed. Emphasis on shared or partnership care.
- People can only take in limited information at a time. Need 2 types of knowledge – facts about care needed & how to carry out care. Facts – connect what learners know already. Help parents & family to organise ideas. Need to use diagrams etc. Procedures – demonstrate how to do care & help parent & family to practise.
- Encourage learners to build deeper connections by taking apart their knowledge & putting it back together how they can understand it. When parents & family look at ideas differently it helps enrich their knowledge: linking individual concepts & processes to build strategies to master care.
- Encourage learners to enhance their knowledge & skills further when they use them to manage the necessary care, making decisions about treatments, solve problems as they arise & know how to adjust care.
- Encourage learners to gain confidence, develop capacities to be discerning (think critically) about new information, look at things in new ways & become aware of their own thinking. The learning then changes behaviours.

## Examples: how the NURSE can put this into practice

- Help parents, family & children feel valued by creating a safe, listening environment. Value parent/family insights into their child. Encourage parent & family "this information is important for your child's care & you can learn it." We can build it slowly if needed
- Help parents & family to connect new ideas to what they already know. Use diagrams & other resources to help them organise new knowledge & store in long-term memory. Demonstrate skills & give opportunities to practise with nurse guidance.
- Encourage parents & family to think differently about the ideas. "The skin is like a brick wall...""Why is it a good idea to use preventer medicines?..." "Tell me what you would do in this scenario?..." "Can you explain your care plan to other people & the nurse?..."
- Encourage open-ended thinking using scenario-based questions. Parents & family make decisions about management & use their knowledge to overcome difficulties with care & treatments.
- Help parents & family to build confidence with their new knowledge & skills. The necessary behaviour changes become part of everyday life.

# Resource: Pt/parent perspective©

## How we help you to learn *Nursing Context / Clinical Situation*

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- Learning works best when learner feels valued, safe, & listened to. What is to be learned must be meaningful & relevant, without jargon in plain language. Parent/-family must feel the learning is possible: not too much at once. Nurse, patients & family draw on each other's expertise of the child & care needed. Emphasis: shared/partnerships
- Two types of knowledge – facts about the care needed & how to carry out the care. Facts – connect to existing knowledge. Assist parent & family to organise ideas. Use of diagrams etc. Procedures – demonstrate & help parent & family to practise. There are limits to how much information anyone can take in.
- Encourage learners to build deeper connections by taking apart their knowledge & putting it back together. Looking at ideas differently enriches the knowledge – linking individual concepts & processes to build strategies.
- Encourage learners to enhance their knowledge & skills further when they use them to manage the necessary care, making decisions about treatments & solving problems as they arise.
- Encourage learners to gain confidence, develop capacities to be discerning (think critically) about new information, look at things in new ways & become aware of their own thinking. The learning then changes behaviours.

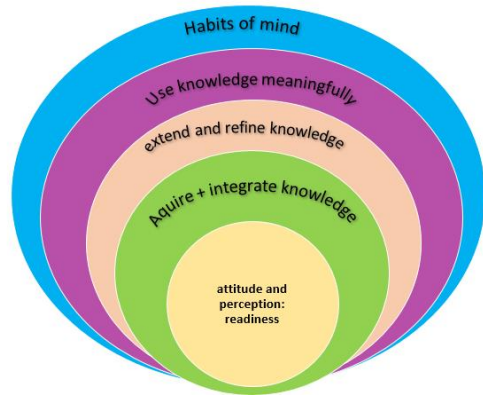
## How we help you to learn *What parents & family can expect from the interaction.*

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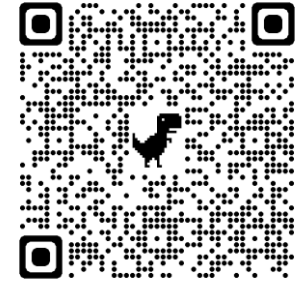
- Your knowledge of your child is important to the shared learning partnership. You should feel that what you are to learn is important to you, your child, your family & that you can master it. You should feel safe, valued, listened to and ready to learn.
- Nurse will help you to gain the knowledge & skills you need to care for your child. The information will be presented in a variety of ways suited to you without over-loading you. You will be given an opportunity to practise.
- By taking apart what you know, and putting it back together with the new knowledge, you will be guided to think about the ideas & skills in different ways to deepen your understanding & capacity to carry out the necessary care.
- You will be asked scenario-based questions to help you and your family to use the knowledge & skills to manage the care for your child, to make decisions about the care & how to overcome difficulties along the way.
- You will be helped to become confident to use your knowledge to determine the value of information from other sources, to become aware of your own thinking & make the necessary care & behaviour changes part of life.

# Summary

## Resource Link



Dimensions of Learning <sup>1</sup>	Learning Context / Clinical Situation	Examples: How the MD/MS can put this into practice	How we help you to learn Learning Context / Clinical Situation	How we help you to learn After patients & study you register from the interaction.
<b>DL-1. Attitudes &amp; Perspectives</b> The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process.	<b>Learning Context / Clinical Situation</b> The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process.	<b>Examples: How the MD/MS can put this into practice</b> The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process.	<b>How we help you to learn Learning Context / Clinical Situation</b> The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process.	<b>How we help you to learn After patients &amp; study you register from the interaction.</b> The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process. The learner demonstrates a positive attitude and perspective toward the learning process.



- *HPs view PE - new lens:*
- *Using cognitive LPs now mapped*
- *Resource to guide HPs practice + pts/families re: think, reason, problem-solve - master management skills, adapt care with confidence, capability.*





# References

1. Thompson, D., Leach, M., Smith, C., Fereday, J. & May, E. 2021 The invisible nature of learning: Patient education in nursing, *Collegian*, 28; 341-345 DOI:<https://doi.org/10.1016/j.colegn.2020.08.002>
2. Thompson, D., Leach, M., Smith, C., Fereday, J. & May, E. 2020 How nurses and other health professionals use Learning Principles in parent education practice: a scoping review of the literature *Heliyon*, 6(3): 03564 <https://doi.org/10.1016/j.heliyon.2020.e03564>
3. Thompson, D & Thompson, M 2014, 'Knowledge, instruction and behavioural change: building a framework for effective eczema education in clinical practice', *Journal of Advanced Nursing*, vol. 70, no. 11, pp. 2483–2494. DOI:10.1111/jan.12439.
4. Thormann, K, Aubert, H, Barbarot, S, Britsch-Yilmaz, A, Chernyshov, P, Deleuran, M, ... Simon, D 2021, 'Position statement on the role of nurses in therapeutic patient education in atopic dermatitis', *Journal of the European Academy of Dermatology and Venereology*, 35(11): 2143–2148.
5. Gagne, R 1985, *The Conditions of Learning* 4th edn, Holt, Rinehart and Winston, New York
6. Wolf, M, Wilson, E, Rapp, D, Waite, K, Bocchini, M, Davis, T & Rudd, R 2009, 'Literacy and learning in health care', *Pediatrics*, 24(suppl. 3): 275–81. DOI:10.1542/peds.2009-1162C
7. Merriam, S 2017, 'Adult Learning Theory: Evolution and Future Directions', *PAACE Journal of Lifelong Learning*, vol. 26 pp. 1-37
8. Braungart, M, Braungart, R & Gramet, P. 2011, 'Applying Learning Theories to Healthcare Practice', in S Bastable, Graet, P., Jacobs, K & Sopczyk, D. (ed), *Health Professional as Educator: Principles of Teaching and Learning*, Jones & Bartlett Learning, Sudbury MA:55-102
9. Carnegie Mellon University Eberly Centre. 2019. Learning principles. 2019, <https://www.cmu.edu/teaching/principles/learning>.
10. Knowles, M 1990, *The adult learner : a neglected species*, 4th edn edn, Gulf Publishing. Company, Houston
11. Marzano, R, Pickering, D, Arredondo, D, Blackburn, G, Brandt, R, Moffett, C, ... Whisler, J 1997, *Dimensions of Learning Teacher's Manual* , 2nd edn, Mid-Continent Regional Educational laboratory, Colorado
12. Ersser, S, Cowdell, F, Latter, S, Gardiner, E, Flohr, C, Thompson A, ... Drury, A 2014, *Psychological and educational interventions for atopic eczema in children*, Cochrane Database of Systematic Reviews, art. no. CD004054, DOI: 10.1002/14651858.CD004054.pub3.
13. Thompson, D. L. 2021. 'I do it without knowing it' perceptions and use of learning principles in nurses' parent education practice : an action research study / by Deryn Lee Thompson.