



Health Education and Training Institute

Connected Teaching and Learning Webinar

Scaffolded Learning

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Our Webinars to date



1. **Blended learning**
2. **The flipped class room**

Underpinned by 'Empowering the Educator' (HETI)

AND

- **3. Scaffolded learning** uses a theoretical approach to learning methodologies to meet the challenge of an evidence base that continues to grow and change rapidly. It is combined with a blended learning approach to include diverse experiences for interaction.

What is Scaffolded Learning and why do I care?



Key Learning Outcomes



Participants in the webinar will

- Discuss how scaffolded learning theory is embedded in their teaching and learning practice
- Tease out from their teaching practice what is scaffolded learning
- Deliberately create a scaffolded learning approach for a particular learning issue

The Nursing Profession



- Difficult to leave behind traditional approach

Teacher



Learner

- Blended learning can be a leap or stretch
- Takes effort

21st Century learning



- Constant change in ‘knowing’
- Research to evidence – growing amount
- Challenge is “How to teach this?”
- **DON'T:** LEARN each piece, learn how to know!

What do I mean??



- Scaffolded learning
 - a process to meet the challenge
 - ever-changing, burgeoning knowledge;
 - learning includes cognitive and social competencies
- The **learner learns to learn**
- Controls their learning

What is it?



- A process
- Using tools and techniques
- Underpins and supports
- The individual
- The group

Background



www.boredpanda.com

Tradition

- Teacher-centred pedagogy derives from the behaviouralist school
- Piaget: stages of learning up to 12 years
- Concrete through to abstract
- Observed behaviour is measurable
- Learning derives from the environment....



Less traditional

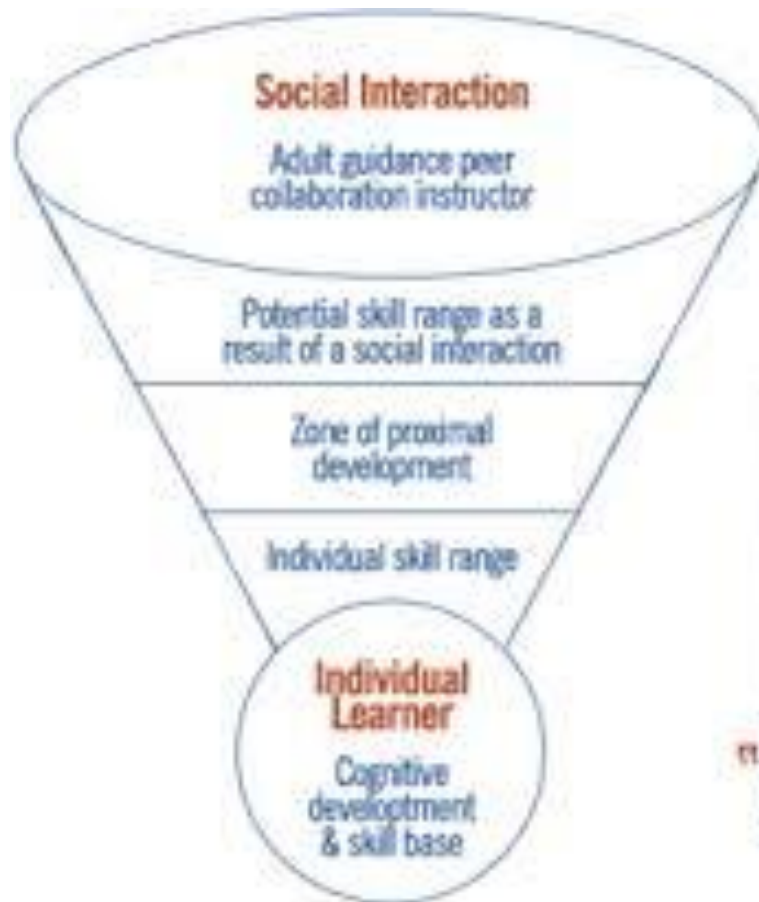
- Learners can actively participate in own learning
- Create their own learning without deliberate instruction
- Cognitivists believe in making meaning out of an experience (guide on the side approach)

Bruner and Vygotsky



- Behaviour + Cognition
- Psychology influences teaching and learning techniques
- Bruner – ‘Discovery Learning’
 - We are active agents in learning
 - Draw on experience
 - Discover new relationships/facts
 - Go beyond information given

How this might look...



“ Learning is cognitive development through social interaction ”

Lev Vygotsky

www.cohenovate.com

Making connections



- Known to unknown
- Vygotsky's ZPD¹ – zone of proximal development
- **Know Want Learn** – e.g. neuro' assessment

KNOW	WANT	LEARN
What do we know already?	What do we want / need to know about this?	What did we learn about this?
GCS	Relationship to anatomy and physiology	It can be related to intrinsic or extrinsic injury: bleed, oedema, trauma, oxygen/electrolyte deficit



- Recognise that previous problem solving methods might work with new problem
- Strengthens theory to practice
- Uses **diagnostic reasoning**
- Uses **critical thinking**
- Facilitator creates temporary framework to help learner understand new concepts, completes tasks

Diagnostic Reasoning³



- Expert clinical judgment
- Adroit recognition of the limits of intuition
- Identifies when analytic **reasoning** is required (ie, “knowing when to slow down”).
- **Diagnostic** experts develop experience and knowledge that increasingly employs intuitive **reasoning** to accurately diagnose **BUT... may need to stop and re-consider**
pilots know when to turn off or turn on autopilot

Critical Thinking



- *Disciplined process of actively and skillfully conceptualising, applying, analysing, synthesising, and/or evaluating information*
- *Gathered from, or generated by, observation, experience, reflection, reasoning, or communication*
- *Guide to belief and action*
- *Transcends subject matter*
- *Focus upon clarity, accuracy, consistency, relevance, evidence, good reasons, depth, breadth, and fairness.*

Scaffolds

Temporary framework

- New ideas are supported
- Encourages initiative
- Encourages motivation
- Encourages resourcefulness

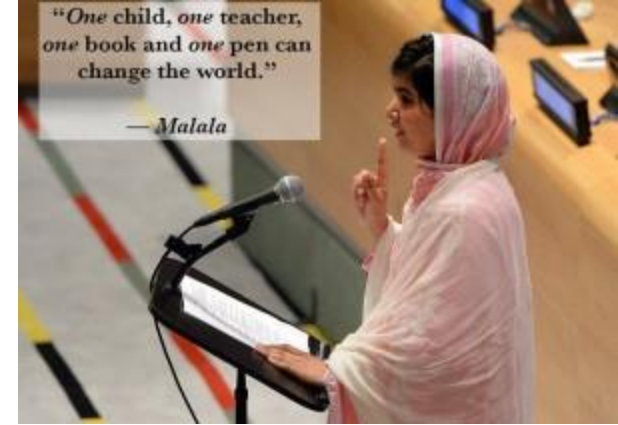


Once process is established

- Framework begins to be dismantled
- Independent learning begins
- Learner prepared to meet challenge of changing knowledge

Ways to scaffold

- Paper and pen
 - Synthesise understanding by note taking
- Technology resources
 - 21st century tools
- Peer interactions
- Teacher-led discussion
- Learner-led discussion



Malala at UN 2013 (diarium.usal.es)



Modelling



- Behaviour – and
 - Reflection
 - Review
 - Discussion
 - Amalgamation

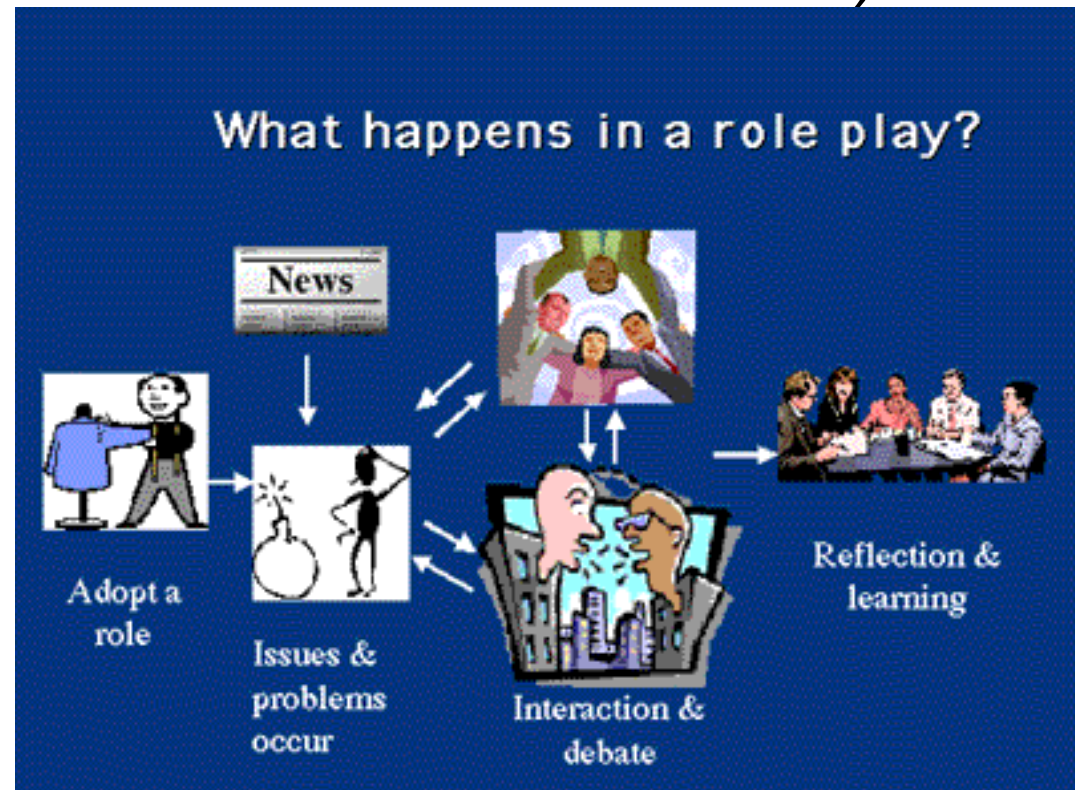


[Link.springer.com](https://link.springer.com)

Guided Practice



- Do as I do and say as I say;
(Live that dream if you are in the Defence Force)
- Demonstration
- Role-play
- Video review
- Video development



Facilitation - 3 elements

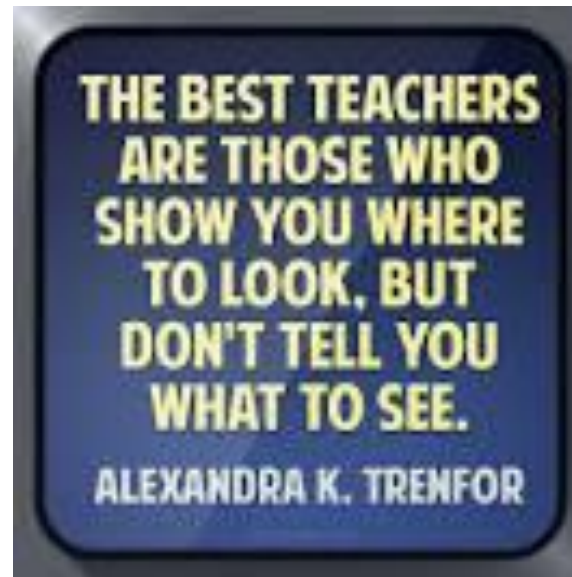


1. Ongoing diagnosis
 - a. Check learner style
 - b. Check status
 - c. Check gap
2. Calibrated support
 - a. Meets the needs of the individual
 - b. Meets the needs of the group
 - c. Effective
3. Fading – remove overt and underpinning supports

Break



- Poll questions



What might this look like?



- Introduction
 - Connect
 - Apply
 - Reflect
 - Extend
- (ICARE)⁴

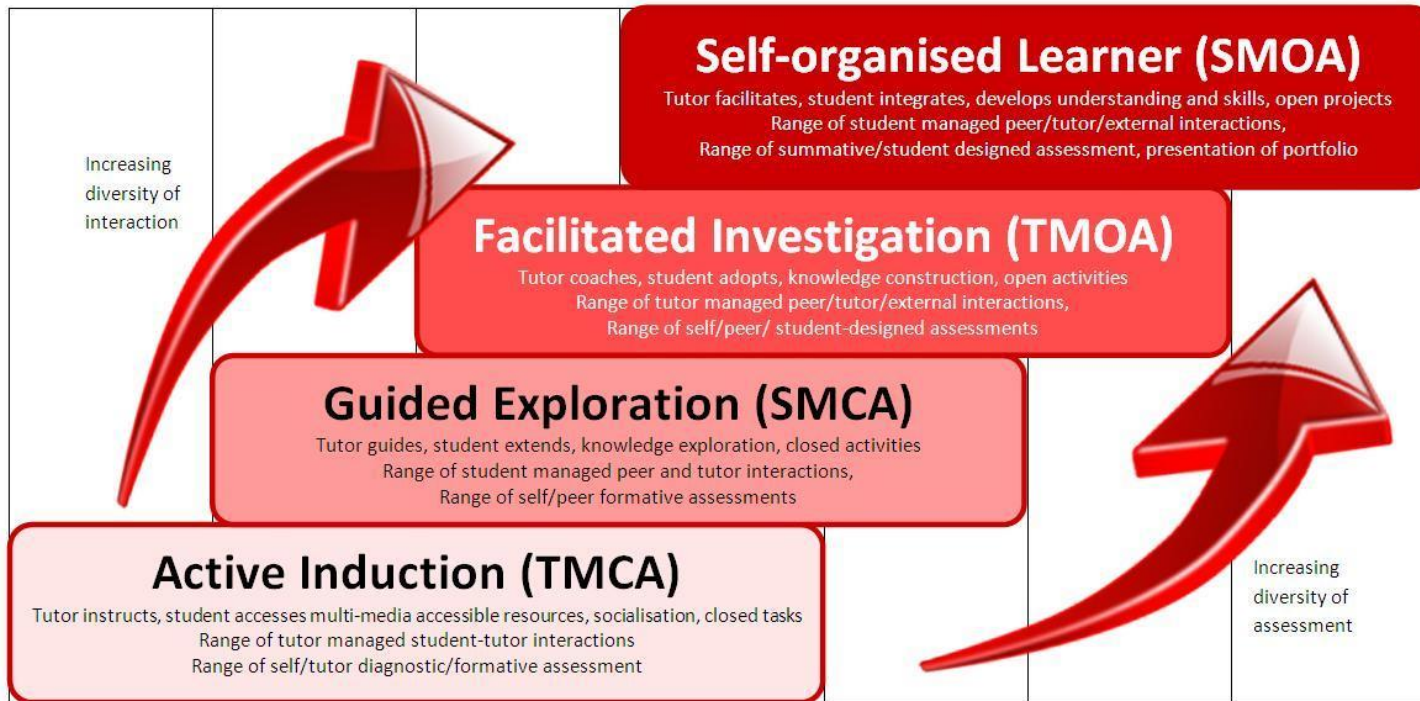
Medication Safety

- What is known
- Unsure
- What could change
- What shall we start with?
- CONNECT
- How to apply, when to, what might happen?
- REFLECT
- Extend by – new plan, revised plan, process for next time

E-Approach 'in action'



Best Practice Principles for e-Learning



Salyers & Carter 2014

Success?



- Shared understanding of the goal
- Must see the point of the task/learning
- Take ownership



modifylifestyle.com



- Shared understanding
 - real tasks embedded in environment
- Facilitator provides assistance and tools/resources
- Includes peer-learning, discussion
- Ongoing diagnosis and calibrated support
 - group approach may be used
- Fading
 - withdrawal of support
 - independent thinker, **life-long learner**

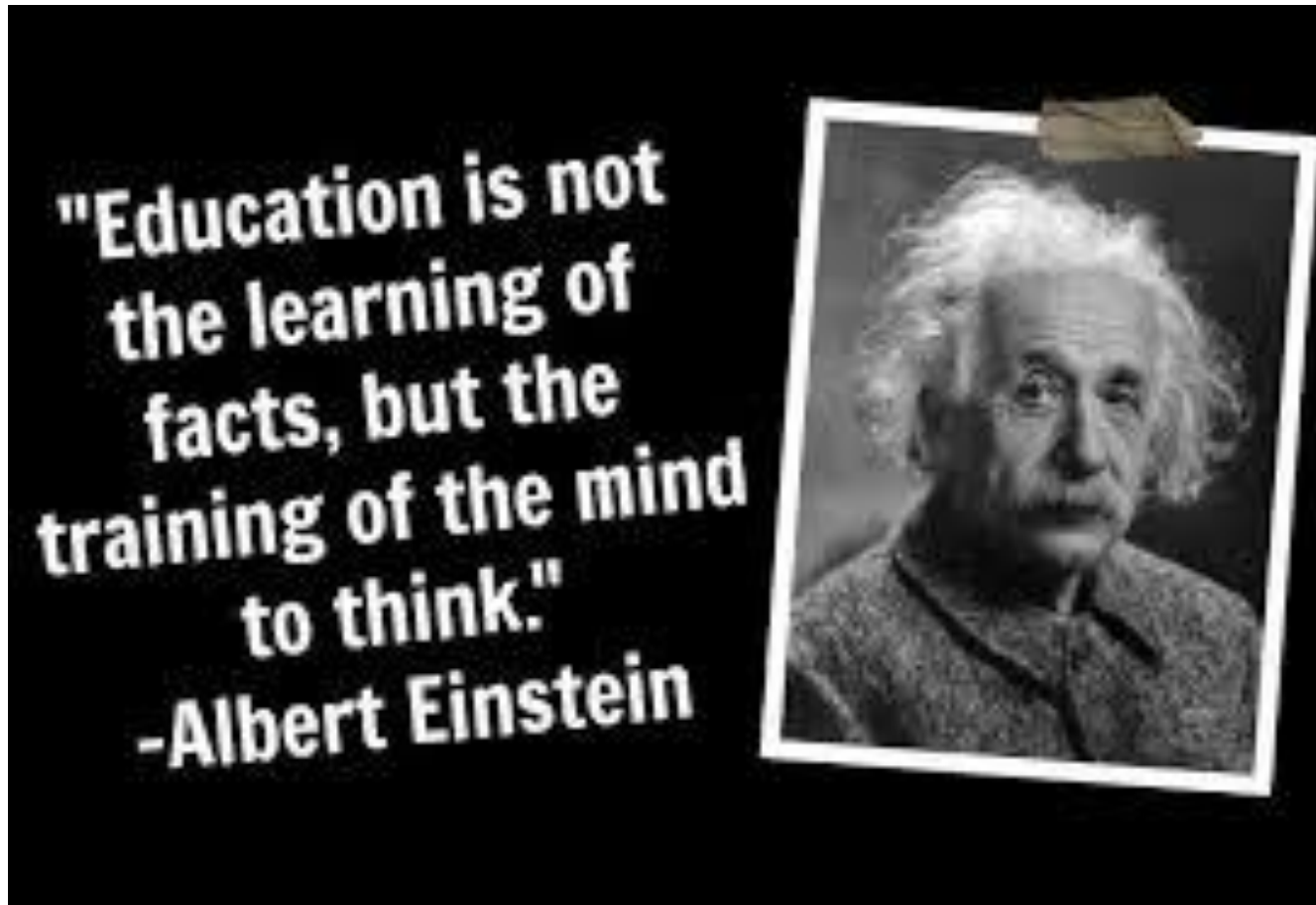
In summary



- Scaffolding
 - Provides support
 - Functions as a tool
 - Extends the worker's capabilities
 - Progression where previously not possible
 - Selectively aids the learner
 - Fades

Worth the struggle





References



1. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press
2. Bruner, J. (2014). How does teaching influence learning? The brainwaves video anthology. <http://www.youtube.com/watch?v=aljvAuXqhds>
3. Croskerry P. (2009). A universal model of diagnostic reasoning. *Acad Med*. 84(8):1022-1028. doi: 10.1097/ACM.0b013e3181ace703.
4. Salyers V and Carter L. (2014). The use of scaffolding and interactive learning strategies in online courses for working nurses: Implications for adult and online education. *Canadian Journal of University Continuing Education* 40(1):1-19
5. Chambers D, Thiekötter A and Chambers L. (2013). Preparing student nurses for contemporary practice: The case for discovery learning. *Journal of Nursing Education and Practice* 3(9):106-113.
6. Puntambekar S and Hübscher. (2005). Tools for scaffolding students in a complex learning environment: What have we gained and what have we missed? *Educational Psychologist* 40(1):1-12.
7. Sanders D and Sugg D. (2005). Strategies to scaffold student learning. *Nurse Educator* 30(5):203-207.

NEXT Webinar



- Wednesday 25 May 2016, 11:30hrs
- ‘Engaging the learner’
- Links to HETI “Empowering the Educator”
- http://www.ted.com/talks/dan_pink_on_motivation
The puzzle of motivation
- Engaging and motivating students:
<https://www.youtube.com/watch?v=DvJuzE-g7OM>
- Please ***complete the survey*** to receive your ***Certificate*** of Participation



Notes



- 5 stage model: Prof Gilly Salmon 'Scaffolding for Learning', <https://www.youtube.com/watch?v=4pKsZ6dVhII> (Swinburne University of Technology)
 - Scaffold
 - Design elearning, engaged! (e-tivities!!!)
 - 5 levels – 15 components – helps you to design eLearning courses
 1. People have ACCESS to technology! Motivation to do
 2. Intervention: eModerator; supports process to the end; host t the cocktail party – basic needs satisfied
 3. The learning: to take part, log-on, return frequently
 4. Culture – navigate around, respond to others: forming a team, familiar with why using eLearning and idea of what's next in the course
- Scaffold with different components

Alberta Education

1. Known to the new; constructing new worlds
2. Grow and develop, gradually shift responsibility from teacher to learner
3. Support when complex
4. Independence : strengths; controls for frustration
5. Descriptive feedback: what's working, where next
6. What do you know and can do, what do you need to know, what's the gap?
7. Build back-ground knowledge
8. Guided practice
9. Prompts – visual, strategy instruction, organisers
10. Life-long processes are put in place; adaptable to future learning processes



Philip Ponchet, 2013, Vanderbilt Community College

- Assignment beyond your grasp: break it into steps, with tools and structure for each step along the way
- 1950s Jerome Bruner a cognitive psychologist
- Just like building – ground work; add scaffold, reduce scaffold and eventually remove!

8 characteristics:

1. clear direction to meet stages of the learning activity; explain what to do to meet the expectations of the learning activity
2. Clarify purpose – the big picture
3. Keeps student on task, steps outlined clearly, moving along
4. Assessment offered to clarify expectations; scaffold supplies examples of quality work and the RUBRIC
5. Points to ready sources and allows exploration beyond
6. Reduces uncertainty, surprise and disappointment – test the lesson, eliminate distractions
7. Delivers efficiency – hard work is required but work is centred on appropriate enquiry
8. Creates momentum, essential questions, examples, partial answers/think aloud modelling, hints and then student does, then all alone with desired outcome

- Model
- Think out loud
- Anticipate difficulties
- Break into smaller parts
- Use reciprocal teaching: review each others work, peer teaching, Feedback
- Refines the process
- Confidence through support to the next level of learning: success
- Diverse learners = teacher uses multiple strategies, aims for greater depth in the subject
- When and how to intervene? Teacher guides
- Beware assumptions on learning skills, organisational capabilities – GTK the student; identify the learners skill sets

- Jerome Bruner – be speculative about possibilities (2014)²
- Going beyond the information given – leads to the person learning how to share that opens the world – an **opening** operation, POSSIBILITY



TED Talks Education - https://www.youtube.com/watch?v=dilnw_dP3xk (2013) <http://www.pbs.org/video/2365006219/>

Little promos and insights to learning and facilitation

Rita Pierson:

teacher/educator; kids don't learn from people they don't like!!!

Teaching and learning should bring joy

Every learner needs a champion

Greatest tool: student enquiry

Difference between knowledge and understanding

Motivation – psychological perspective : who is successful and why? GRIT!! Passion and perseverance, stamina for the goal; marathon not sprint

How to build 'grit'?

What notes will you make to help scaffold learning to build a life-long learner?

