emCETT
east midlands centre for excellence in teacher training

Learning Theories

In Initial Teacher Training

The aim of this resource is to provide teacher educators with some guidance on the most current, theoretical perspectives on teaching and learning. It has been particularly designed for tutor-assessors delivering EMCETT's blended-learning models of the new teaching qualifications. The emphasis of the resource is on those current perspectives that have direct relevance for professional practice in the classroom. The underpinning philosophy is that a wider knowledge of 'traditional' theories of teaching and learning is relevant in an academic study of education but less so in a professional practice award such as the PTLLS, CTLLS and DTLLS. It also recognises that teacher educators who have developed into the role from within the sector rather than from within an academic environment often lack confidence in this aspect of the ITE curriculum.

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CENTRES FOR EXCELLENCE IN TEACHER TRAINING

Foreword

Learning Theories in Initial Teacher Training is one of a short series of pamphlets produced by EMCETT to support new teacher educators and particularly those working with trainee teachers drawn from vocational backgrounds who are generally not graduates.

The diversity of teachers working in the Lifelong Learning Sector reflects that of the sector in which they teach. Unlike the schools sector, teachers working within adult education colleges, community-based settings, custodial environments, commercial and voluntary sector training organisations and (not infrequently) in further education colleges often lack prior educational experience of the type that will prepare them for studying and achieving a Level 5 teaching qualification.

Throughout EMCETT's support for the development and delivery of sector-led teacher training programmes, over the last four years, it has been apparent that new teacher educators frequently lack confidence in delivering theoretical perspectives on teaching and learning. There is a widely held belief that a wide and deep academic grounding in the historical and current theories of teaching and learning (though mostly of the latter) is essential for credibility and effectiveness within the role. Whilst this is, indeed, the orthodox view, EMCETT believes that it is time to challenge this position. This belief often undermines the confidence of very effective practitioners who would otherwise be highly effective in mentoring and training new teachers. It is the EMCETT view that much of what is taught as learning theories has little relevance to applied pedagogy and the day-to-day experience in the classroom.

The approach taken in this pamphlet is, therefore, to concentrate on the 'broad brush' or 'big ideas' that reflect - or might challenge - the trainee's thinking about teaching and learning and to then focus in the most recent evidence-based approaches to effective pedagogy. Throughout, the focus is – and, we believe, should be – on practical strategies for effective teaching that can be clearly demonstrated in classroom observations.

Please note, however, that EMCETT applauds an 'academic interest' in the psychology of learning but does not regard it as necessary within a PTLLS, CTLLS or DTLLS programme (beyond that stated above). Further EMCETT would greatly welcome more HEI engagement in extending these programmes towards Foundation and Honours Degree level, incorporating a range of extension modules including a deeper and broader exploration of learning theories.

EMCETT's publications in this series are intended to help teacher educators to facilitate trainee progression through a Level 4/5 ITE programme. To this end, they include the following -

- The Minimum Core in Initial Teacher Training
- Thinking and Reflecting in Initial Teacher Training
- Learning Theory in Initial Teacher Training
- Academic Writing Skills in Initial Teacher Training

EMCETT believes that all trainees, even those with little prior experience of academic programmes of learning and assessment, are able to generate Level 4/5 output, given the right 'scaffolding' and support. EMCETT-endorsed ITE programmes enable trainees to develop academic skills (critical thinking, reflective practice, academic writing and referencing) alongside the development of their teaching skills and knowledge. These two aspects of development are, however, treated separately in both delivery and assessment during the early modules and only come together in the latter part of the CTLLS programme or the Level 5 DTLLS content.

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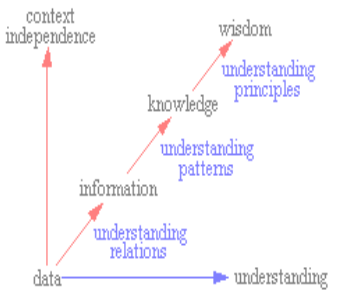
1. Learning Theories - EMCETT's Approach

EMCETT endorses and advocates teaching strategies that promote *deep* (or even *profound*) learning and actively *engage all the learners* within the group. The concepts of deep and engaged learning are both evidence–based and theory-based. Excellent teachers understand and apply a range of pedagogies that support deep learning and learner engagement, and it is EMCETT's view that teacher training should place a special emphasis on the knowledge and understanding that directly underpins practical expertise in these pedagogies.

Teachers new to the profession often believe teaching to be a process of imparting knowledge (and skills) to learners. This is, quite often, not the case. We can impart information, but does that equate to learning on the part of the student? We can demonstrate a skill but does that guarantee the learner will be able to take 'ownership' of that skill.

Information is <u>not</u> knowledge



Learners need to engage with information before it can become knowledge. They need to wrestle with a skill before it can become 'their skill'. The overriding theoretical understanding required by teachers in the Lifelong Learning sector is therefore the following:

- learning requires active engagement with the subject or process (engaged learning);
- and learners must believe that engagement is worth the effort (motivation);
- new learning is built on the foundations of prior learning.

PRINCIPLES

1. a. It is <u>not the teacher's role</u> to simply broadcast their own knowledge and skills.

1. b. The teacher should deliver a context, the environment and the resources that will:-

- **encourage the learner to make the effort to learn;**
- **enable learners to build bridges to new knowledge and skills from what they already know and can do.**

From a theoretical perspective, we could accept the above principles whether we subscribe to Piagetian learning theory, Bruner's Constructivism or Skinner's Behaviorism. Good teaching does not, however, require a detailed, historical understanding of these theorists and their theories. What is important is that <u>it is the teacher's job to ensure that each learner is ready and able to learn, at each step of the way</u>.

2. Active engagement with the subject or process of learning

Active engagement, in this sense, is always - and at least – an internal and invisible cognitive process that can only be inferred through communication with learners or by observing their behaviour. Learners may be quietly looking in your direction, but this is not a guarantee of *engagement* and even if it were,

it is unlikely to be very *active* for long ('*the lights may be on, but is there anyone at home*?'). However, engagement can often be inferred through an observation that individuals or groups are grappling with a task or problem. It can also be inferred through formative assessment (now, better labelled,).

> *"What the learner does is more important than what the teacher does." See Geoff Petty's resources on active learning.*

In planning sessions, teachers should always be asking themselves, 'how can I maximise the likelihood that the learners will be engaged in this activity or process?'. In reflecting on a session, teachers should be asking, 'how can I be sure that they were engaged in this activity?'. This is not rhetoric; teachers should actually be asking these questions and teacher educators should be encouraging them to do it, regularly and often!

3. Deep Learning

Deep and profound learning: The more engaged the learner, the better the chance that their learning will be 'deep' or 'profound' as opposed to shallow or skimmed (e.g. rote learning and simple memorisation of information to pass a test). Deep learning implies a level of understanding or conceptual grasp beyond skimming and true 'skill ownership'. Profound learning involves the distillation of general (or even 'universal') principles and 'truths' which can applied to completely novel situations. A teacher cannot deliver deep or profound learning, they can only create the conditions in which it might flourish. Engaging learners in deep and profound learning is therefore the central and overriding preoccupation of all excellent teachers.

The distinction between Deep, Profound and Surface Learning is an important one in the context of the LSIS view of teaching and learning and it should be considered as one of the 'Big Ideas' that trainees would benefit from knowing.

The West-Burnham model has a distinct resonance with the more well-known Bloom's Taxonomy of Cognitive Skills which provides a 'route-map' for interpreting 'levels of learning', defining learning objectives and for scaffolding deeper learning.

Bloom's Taxonomy of cognitive skills offers a well-known model of how trainees can be encouraged to think more 'deeply' and critically about issues and ideas. The various levels in the Bloom model point to ways of questioning trainees to encourage critical thinking.

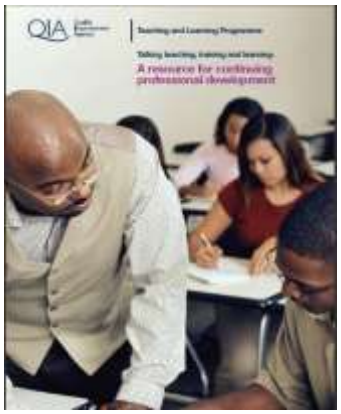
Knowledge/Comprehension
What? Who? When? What is an example of x? What is meant by …..? What is another way of explaining..? Can I describe x in my own words?

Application How is it used? What does it relate to? In what situations …?

Analysis Why? How? What is the reason for … ? What evidence is there to support the conclusion? What are the causes of …? How does this fit together?

Synthesis If x happens, then what next? What does the theory predict will happen? What are my own conclusions on the basis of the information available? How does x relate to y?

4. The 10 Pedagogies



The 10 Pedagogies are a diverse range of teaching strategies that promote engaged and deep learning. It is EMCETT's view that teachers exploiting just three or four of these pedagogies within an observed session would achieve at least 'good' grading.

The Learning and Skills Improvement Service for England reports that '*responses of learners and teachers to active learning approaches in previous Teaching and Learning Programme resources provide overwhelming evidence of their success in motivating and engaging learners and supporting their learning. The 10 approaches that form this framework have shown to be particularly valuable stepping stones to improving professional practice. Each approach is supported by evidence-based research.*'

A thorough understanding and application of the 10 Pedagogies is essential for PTLLS and beyond. They can be downloaded as card resources from the Excellence Gateway. This area of the Excellence Gateway also includes downloadable and interactive, on-line resources that explore a number of these pedagogies in greater depth and with opportunities to further explore their academic underpinnings.

5. Motivation to engage with learning

The problem with theories of motivation, like learning theories, is that there are so many of them. Theories of the nature of *reward* and performance – whether behavioural or humanistic – may be relevant to the academic study of education or psychology but of little practical use in managing motivation in the classroom or the workplace. However, Vroom's (1964) Expectancy Theory is, a simple approach which holds up well in the context of teaching and learning. It provides a particularly good insight for teachers working with de-motivated learners.

This theory states that motivation arises from three elements of belief:

1. success will be possible with the right effort;
2. achievement will yield some form of reward;
3. the reward will be something of value (to that individual).

Vroom V H. (1964) Work and motivation. New York: Wiley

Vroom's theory reminds teachers that achievement starts with *belief* that:

- success is possible (which means belief in own ability as well as **belief that those around them will allow them to succeed**);
- success will be worth the effort.

Sadly, many teachers do not feel comfortable – or do not regard it as part of their role – to address these 'affective' issues of learning. However, teaching is unlikely to be effective unless these issues are addressed …… or the teacher is lucky enough to have a class of intrinsically motivated and proactive learners.

A learner's belief in their own ability to succeed or, indeed, the belief that others will let them, is greatly influenced by their prior life's experiences. Learners who have been unable, for whatever reason, to exercise any real

control over their life are likely to be relatively, and sometimes chronically, *disempowered*. Teachers and learners may find it useful to reflect on and discuss their personal beliefs in relation to the following.

"I make my own life." People who believe this statement is true -	*"Life makes me what I am"* People who believe this statement is true -
- have what sort of approach to life?	- have what sort of approach to life?
- also believe?	- also believe?
- have these capabilities and/or limitations?	- have these capabilities and/or limitations?
- do and/or say?	- do and/or say?
- feel?	- feel?
PROACTIVE/GENERATIVE	**REACTIVE/ADAPTIVE**

Based on: *Phares, E. J.*, (1968) *Differential Utilization of Information as a Function of Internal*-External *Control*, Journal of Personality (December), pp. 649-662 - and –
Rotter, J. (1966). *Generalized expectancies for internal versus external control of reinforcements*. Psychological Monographs, *80*, Whole No. 609.

It may be fruitful to consider how a relatively empowered teacher might understand (or not) learners who are, themselves, relatively disempowered.

A significant and relatively recent, addition to our understanding of this important issue of 'self belief' comes from Prof Carol Dweck from Columbia University. Dweck's research has highlighted that those learners who believe that their 'intelligence' is fixed are less motivated to learn than those who believe that they have 'untapped potential' to succeed. The parallels with the Proactive and Reactive beliefs, above, are clear. Watch the short video illustrated in the picture to the right for a clear exposition of Dweck's ideas and of others, presented by Geoff Pettie.

Maslow's Hierarchy of Needs Chart

An essential aspect of this 'affective' or emotional perspective on learning is that learners need to feel safe (physically and psychologically) before they can comfortably engage in education and learning. Maslow's (1943) theory of motivation asserts that humans find it hard to pursue 'higher needs' (such as 'belonging' and self- esteem) if basic

needs such as 'safety' or physical comfort (hunger, thirst, etc) are not being met. Consider 'safety' in its psychological sense: for example, the need to be free from harassment and bullying before we can effectively pursue learning goals. This is an important aspect of 'Safeguarding' as defined within the Common Inspection Framework.

6. The Skills to Learn

Being able and ready to learn is not just dependent on prior subject knowledge and experience, it is also – and importantly – dependent on a generic ability *to learn*. The generic ability to learn is, itself, the product of:

- the ability to maintain attention in order to engage with the process of learning, which may be limited equally by –
    - low motivation
    - attention deficit (learned or physiological)
    - emotional barriers (such as insecurity);
- ability to assimilate learning through reading, writing, listening (in the language of delivery) or the use of current technologies;
- ability to progress through particular assessment protocols (such as formal essay or report writing);
- experience in the practice of thinking skills (that underpin 'deep' and 'profound' learning).

This is why Key Skills (such as Improving Own Learning and Performance) and embedding Literacy, Language, Numeracy and ICT are crucial elements in curriculum design. Further, the teacher needs to be able to identify when deficits in these generic skill areas are creating barriers to learning so that they can be mitigated, if necessary with the support of experts.

See Geoff Petty's advice and resources on teaching generic skills.

Intelligence: a dangerous and unethical concept?

EMCETT supports the view that classical notions of *intelligence* (and IQ score) are neither useful or relevant for the practising teacher. Further, when *intelligence* is used to 'pigeon-hole' learners, good teaching and learning are seriously undermined. Anyone doubting the validity of this position should refer to:

- John Hattie's research
- Dweck's work on Motivation and Feuerstein's work on 'teaching intelligence' (both from Geoff Petty's website)
- Daniel Goleman's work on Emotional Intelligence
- Frank Coffield's pamphlet 'All you wanted to know about learning and teaching but were too cool to ask'.

7. The Big Ideas about Teaching & Learning

EMCETT firmly believes, as stated above, that a detailed knowledge of the 'classical' learning theories is likely to have little practical impact on the quality of teaching and learning. An overview of the 'big ideas' that underpin the various philosophical, psychological and behavioural schools of thought can be useful context in understanding why certain pedagogies work and others do not. The summary, below, extracted from an Infed online article is particularly useful in providing an overview of these 'big ideas'.

Four orientations to learning (after Merriam and Caffarella 1991: 138) reported in Infed - www.infed.org/biblio/b-learn.htm

Aspect	Behaviourist	Cognitivist	Humanist	Social and situational
Learning theorists	Thorndike, Pavlov, Watson, Guthrie, Hull, Tolman, Skinner	Koffka, Kohler, Lewin, Piaget, Ausubel, Bruner, Gagne	Maslow, Rogers	Bandura, Lave and Wenger, Salomon
View of the learning process	Change in behaviour	Internal mental process (including insight, information processing, memory, perception	A personal act to fulfil potential.	Interaction /observation in social contexts. Movement from the periphery to the centre of a community of practice
Locus of learning	Stimuli in external environment	Internal cognitive structuring	Affective and cognitive needs	Learning is in relationship between people and environment.
Purpose in education	Produce behavioural change in desired direction	Develop capacity and skills to learn better	Become self-actualised, autonomous	Full participation in communities of practice and utilisation of resources
Educator's role	Arranges environment to elicit desired response	Structures content of learning activity	Facilitates development of the whole person	Works to establish communities of practice in which conversation and participation can occur.
Manifestations in adult learning	Behavioural objectives Competency - based education Skill development and training	Cognitive development Intelligence, learning and memory as function of age Learning how to learn	Andragogy Self-directed learning	Socialisation Social participation Associationalism Conversation

During 'workshop time', teacher educators should encourage the critical exploration of existing ideas regarding teaching and learning - whether these are grounded in personal beliefs or formal theory. The following selection of viewpoints offers some examples of how this critical evaluation might be facilitated.

The Nature of Learning

'Big Idea'	Exploration
Learning as: ■ a natural (inevitable) process; ■ a constructed, institutionalised process; ■ politically driven; ■ empowerment; ■ disempowerment; ■ social engineering; ■ personal growth; ■ a change process.	Trainees should be encouraged to explore and evaluate these perspectives - ■ Are they valid? ■ How would they impact on teaching & Learning?
Learning for: ■ work; ■ society; ■ human potential; ■ individual attainment; ■ etc.	Polarised views should be challenged. For example is *learning-for-work* dehumanising ('factory fodder') or empowering (social inclusion and mobility)? Is *human potential* best achieved through *education for education's sake* or might it be achieved through *work*. What is the relationship between *work* and *society*?
Knowledge -Vs- Skill Academic -Vs- Vocational Education -Vs- Training	Is it possible to learn a skill without any knowledge? (or vice versa) Is being *academic* about *knowledge* itself or is it a *culturally formalised <u>way</u> of acquiring knowledge*? How useful to society would a knowledgeable but unskilled workforce be?

The Nature of Learners

The following list offers some possible ways of critically evaluating ideas and beliefs about the nature of learners.

- Adult Learners - do they learn differently to children and, if so, how?
- Values and beliefs regarding learning and learners (how do they influence practice)?
- Motivation, challenge and success/failure (are we all the same or are we different?)
- Prior good/bad learning experiences (how do they influence current learning)?
- Are there *types* of learners (e.g. identifiable traits such as Learning Styles)?
- What is Intelligence (is it still a useful concept)?
- Do learners need to receive knowledge or 'grow' knowledge?

The Process of Learning

The following list offers some possible ways of critically evaluating ideas and beliefs about the nature of the learning process.

- Taught or self-directed learning (what should the balance be and what are the conditions that facilitate either?)

- Individual or collaborative learning (which is best for what and for when?)
- Experiential, reflective, theoretical learning (how are they different and how can they be related?)
- What are the conditions that promote engagement or disengagement with learning?
- Deep and Surface Learning (what does this mean?)

The Nature of Teaching

How much are we imposing our views, approaches, theories, styles, etc on our learners? What are our values and beliefs about teaching?

Where on the continuum are we?	
TEACHER CENTRED APPROACH	**LEARNER CENTRED APPROACH**
Pedagogy	**Androgogy**
Didactic	**Experiential**
Teaching	**Facilitating**
Directive	**Supportive**

Is it the teacher's role to impart knowledge or to facilitate learning, or both? (This question lies at the heart of one of the 'biggest ideas' in education and warrants frequent exploration with trainees.)

Note the use of educational jargon in the table above. It can be useful for trainees to maintain their own glossary of educational terms. (This use of jargon is intended to be empowering for trainees rather than excluding.)

8. Conclusions

It is EMCETT's view that the theoretical and conceptual perspectives presented in this pamphlet are those that really matter in helping teachers to be effective in the classroom. We invite feedback from teacher educators and educationalists in the hope of stimulating a critical dialogue about the ideas and challenges presented here. We also expect and hope that this resource will grow and continue to develop through a process of critical dialogue.

Feedback should be addressed to:

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