


Basic Principles & Concepts in Learning (Learning how to learn)



**CENTRE FOR ASSESSMENT & EVALUATION
DEPT. OF MEDICAL EDUCATION,
COLLEGE OF MEDICINE, KSU**

Overview

What is Learning?

How is undergraduate learning different?

How to learn deeply and actively?

What is your learning style?

How to promote reflective learning?

Learning:



- The process of **acquisition** of new **knowledge, skills, attitudes, values, behaviours, preferences, understanding**
- It is **not** only knowledge
- It is, however, not mere acquisition, but **construction of meaning**
- Learner should be able to **demonstrate** such new learning

TEACHING & LEARNING



- Teacher:
- A teacher is anyone who affects the environment so that others learn.
(By this definition we don't even have to have a teacher!)
- Learning: A process that leads to **change**, which occurs as a results of experience and increases potential for future performance.

Definitions: Learning is:



1. “a persisting *change* in human performance or performance potential . . . (brought) about as a result of the learner’s interaction with the environment”

(Driscoll, 1994).

Definitions: Learning is:



2. “the relatively permanent ***change*** in a person’s knowledge or behavior due to experience” (Mayer, 1982, p. 1040).
3. “an enduring ***change*** in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience” (Shuell, 1986, p. 412).

Study: a definition



**“ READING WITH A PURPOSE
I.E TO OBTAIN SPECIFIC
ANSWERS TO SPECIFIC
QUESTIONS”**

Ailan Moran

When Learning take place?



- **Learning occurs as a result of the activity in which the learner not the teacher, engages.**

Adults Learning Principles



- ❑ *Effective & Safe learning climate*
- ❑ *Learners to be Involved in:*
 - ❑ *diagnosing their learning needs*
 - ❑ *Planning the learning*
 - ❑ *Identify learning resources*
 - ❑ *Evaluate their learning*

**How is
learning & studying as
an **undergraduate (Adults)**
different to
learning & studying as
a **secondary school student
(Adolescent)** ?**

How different is adult learning?

	Adolescent learning	Adult learning
Sources	Mainly from teachers	Not only from teachers. Books, internet, peers are also very important
Orientation	More knowledge oriented	Not only knowledge. In a professional course there are skills, attitudes, behaviours
Goals	To pass an exam	Not only to pass an exam, but mainly to train for a profession
Type of learning	Passive & superficial mostly	Active and deep learning. Learning needs to be with you for a lifetime
Methods	Mainly books and teacher's notes	Lectures, small group discussions, computer assisted learning, library, internet, clinical skills sessions, laboratory
Assessment	Written exams	Written exams, practicals, vivas (oral exams), clinical exams (e.g. OSCE), Workplace exams

Why are these differences in learning?

We consider you as adult learners

The need to know — adult learners need to know why they need to learn something before undertaking to learn it

Learner self-concept — need to be responsible for their own decisions

Role of learners' experience — have a variety of experiences of life - the richest resource for learning

Readiness to learn — are ready to learn those things they need to know in order to cope effectively with life situations

Orientation to learning — are motivated to learn to the extent that they perceive that it will help them perform tasks they confront in their life situations.

If adult learning is to be achieved.....

Learning has to be **deep** and **active** learning as opposed to superficial and passive learning

Why is deep/active learning important?

- Superficial learning is easily and very quickly **forgotten**
- With superficial learning you will not be able to **apply** or use it in practical situations
- Deep learning accommodates varying **learning styles**

How can deep /active learning be achieved?

Do not be a passive receiver of information.
Try to **interact** with information and try to **apply** it and try **to do different things** with that information.

Active versus passive learning

What is passive learning (teacher-centred)?

Memorizing without understanding.

Do not promote passive reception of information.

What is active learning (student-centred)?

Learning in a way that promotes understanding.

Try to promote interaction with information; i.e. by encouraging applying it, and doing different things with that information.

What do we remember?

- **20% of what we read**
- **30% of what we hear**
- **40% of what we see**
- **50% of what we say**
- **60% of what we do**
- **90% of what we read, hear, see, say and do**

Learn actively and deeply

- **Don't** just read and close the book
- **Try to do different things with what you have read immediately after writing**
 - ✓ **draw flow charts**
 - ✓ **draw diagrams using colour**
 - ✓ **write a summary**
 - ✓ **attempt answering pass papers**

In short, interact with what you have learned

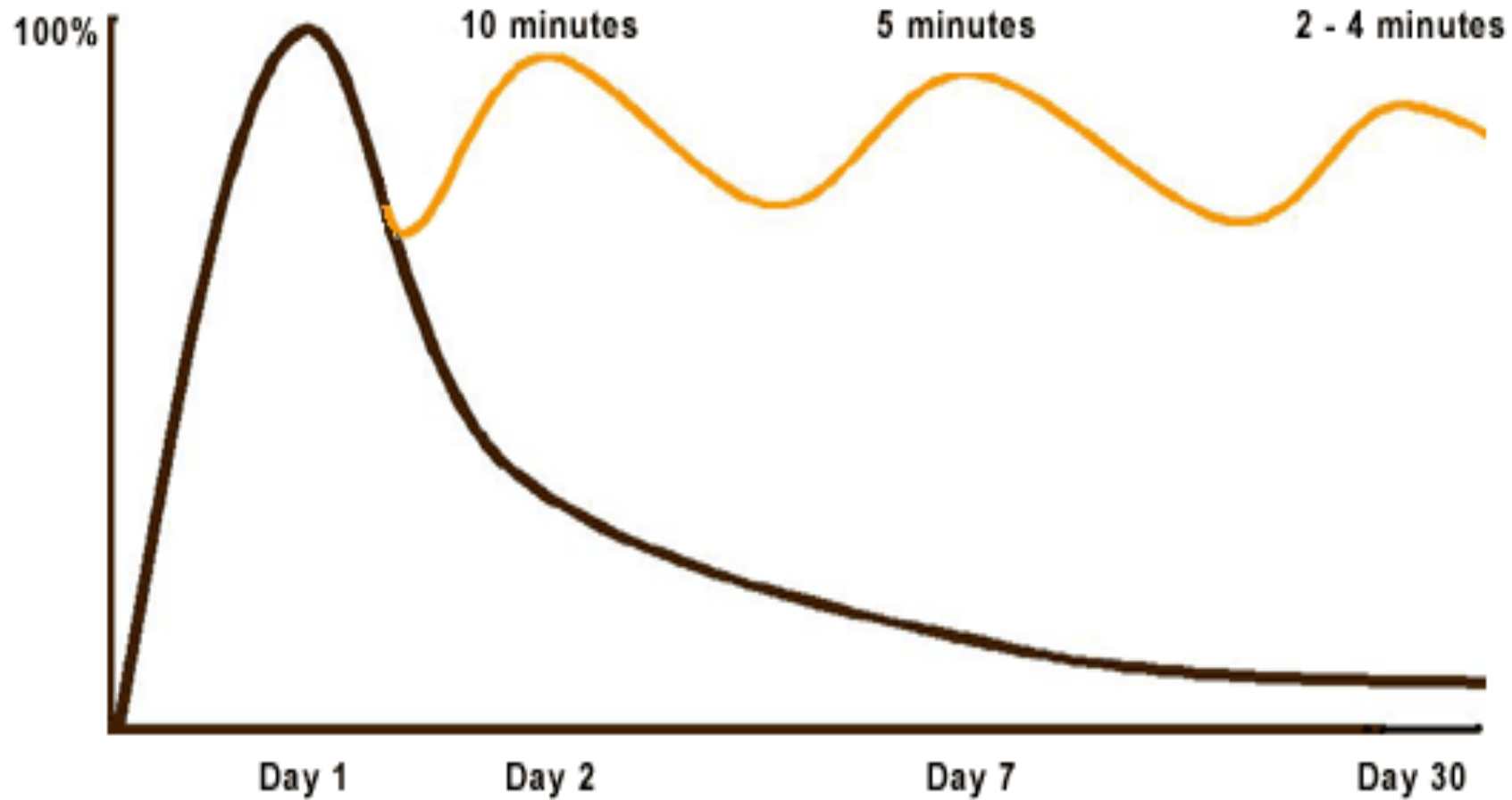
How to shift information from short term to long term memory?


- 1. Learn actively & deeply**
- 2. Revisit, repeat & revise**

Important points about revisiting & revision

- ✓ **There is no special place of time to revise.**
- ✓ **Try to revisit and repeat at every given opportunity.**
- ✓ **Do not wait until you finish studying to revise.**

Forgetting curve





Why there is different in
Learning from one person
to Other??

Learning styles I

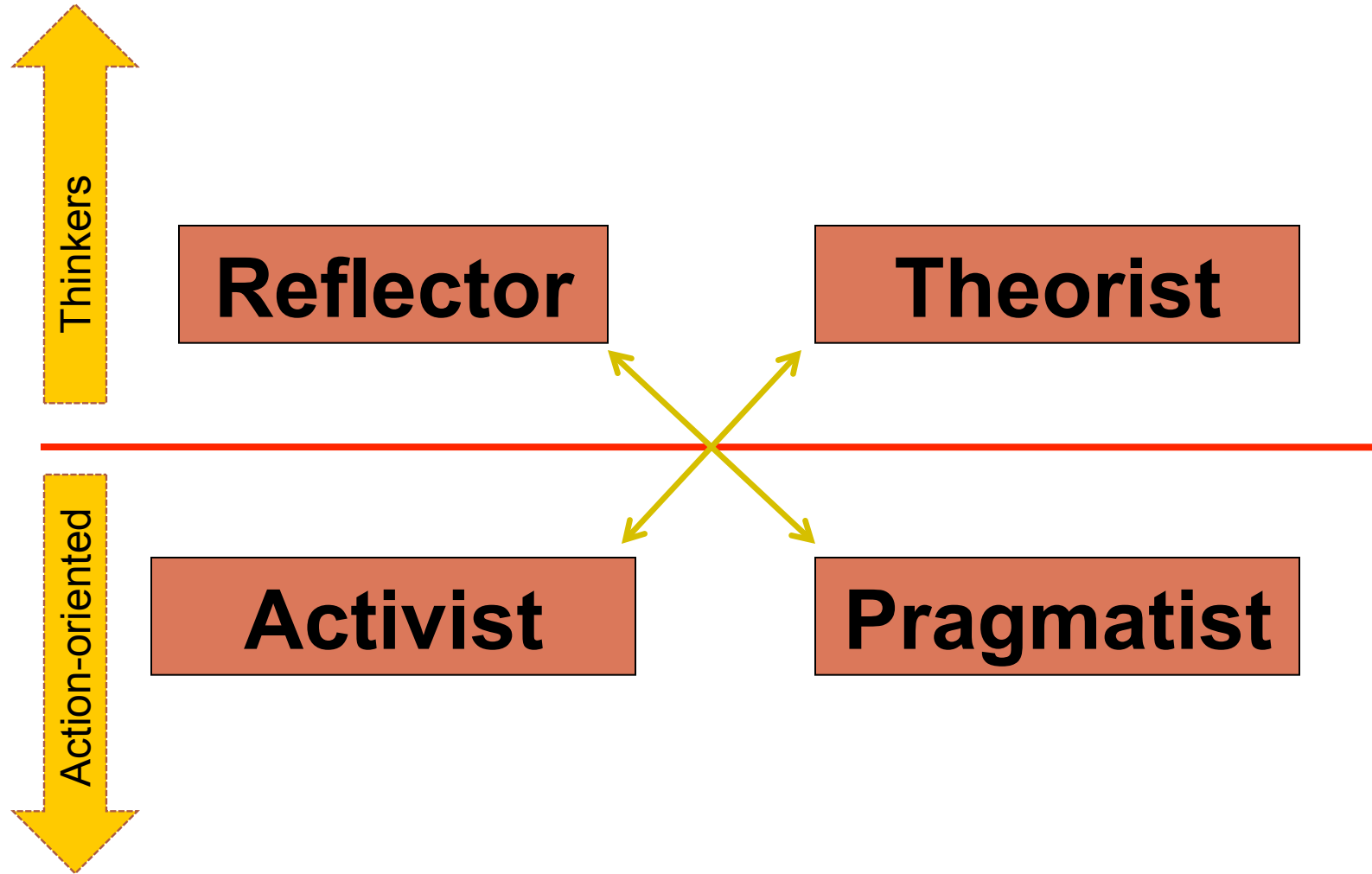
Visual learner

Auditory learner

Reading/writing

Kinaesthetic learner

Learning styles II





• Your learning style =

How you perceive information

+

How you process information

WHAT IS LEARNING STYLES?



- The way in which each individual learner begins to concentrate on, process, absorb, and retain new and difficult information.
- Learning styles are the most important tool for us when we construct knowledge.
- The right way of studying does not exist.
- Everybody learns in his individual way, but without knowing this way, you can't learn efficiently – sometimes you can't learn at all. **SO**
- Learning styles are strategies or regular mental behaviors that are habitually applied by an individual to learning.



Classical classification of Learning styles:

- Visual (prefer to learn by seeing)
- Auditory (prefer to learn by sound)
- Kinesthetic (prefer to learn by doing)
- Verbal (linguistic) learning style
- Logical (mathematical) learning style
- Social (interpersonal) learning style

Visual style:



* Characteristics

- – prefer to see the information
- - like reading text
- – memorizes by writing repeatedly
- – when inactive, doodles, looks around

* Enhancing

- – Visualization-imagine
- – Visual prompts
- – Concept maps
- - visual representation of information-posters etc



Auditory style:

* Characteristics

- – like to listen to teacher
- – talks fluently and logically
- – memorizes by repeating words aloud
- – inactivity leads to talking to self or others

* Enhancing

- – active listening
- – rhyme and rhythm-mnemonics
- – imagine you can hear ...

Kinesthetic



* Characteristics

- hands on
- talks about actions, speaks more slowly
- inactivity leads to fidgeting
- distracted by physical disturbance

* Enhancing

- use objects that can be manipulated
- acting out
- body language and physical movements



The verbal (linguistic) style:

- Involves both the written and spoken word.
- Express both in writing and verbally.
- love reading and writing.
- Know the meaning of many words
- The temporal and frontal lobes drive this style.

The logical (mathematical) style:

- using brain for logical and mathematical reasoning. classify and group information to learn or understand
- Work well with numbers and perform complex calculations.
- Work through problems and issues in a systematic way
- The parietal lobes, especially the left side, drive our logical thinking.



The social (interpersonal) style:

- Communication well with people, both verbally and non-verbally.
- listen well and understand other's views.
- Prefer learning in groups
- prefer to stay around and talk with others.
- The frontal and temporal lobes handle much of our social activities

Perceptual Elements of style

Auditory Learners	Visual Picture Learners	Visual Text Learners	Tactile and/or Kinesthetic Learners	Verbal Learners
<p>Remember best when they LISTEN to a lecture, a presentation, or an audiotape.</p>	<p>Remember best when they SEE (create) mental images of what they hear or read.</p>	<p>Remember best when they READ the written word (textbooks, memos, and e-mail messages).</p>	<p>Remember best by DOING rather than sitting and listening, reading, or thinking about the information.</p>	<p>Remember best when they DISCUSS with others the new and complex information they are learning.</p>

How can you learn from learning experiences (both academic & non-academic)?

By active reflection

What is **reflection**?

Reflection is purposeful and systematic revisiting of a learning experience with a view to learning

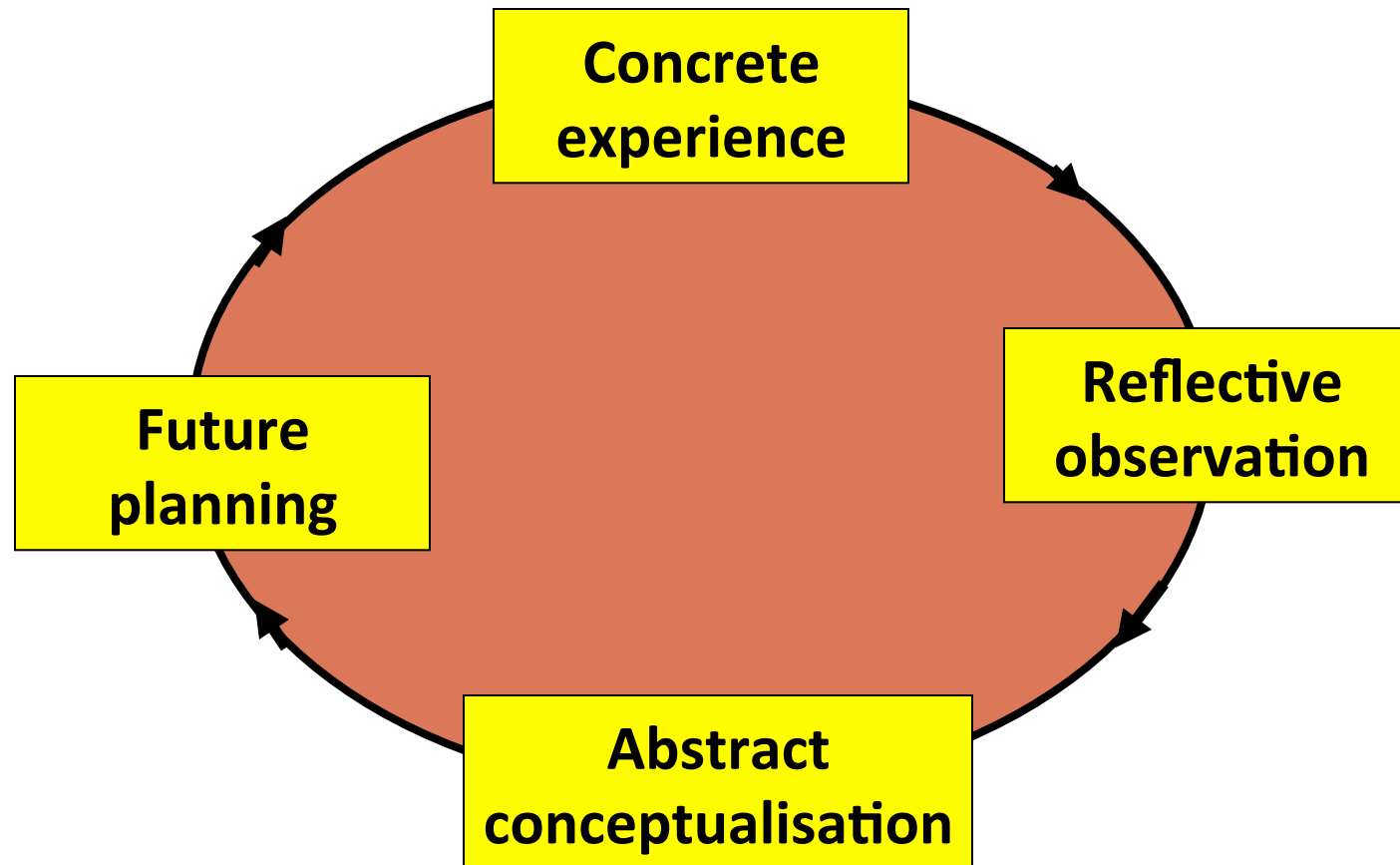
What is a **learning experience**?

Any incident that you either participate in or see/hear

Reflection - cyclical process

- many ways

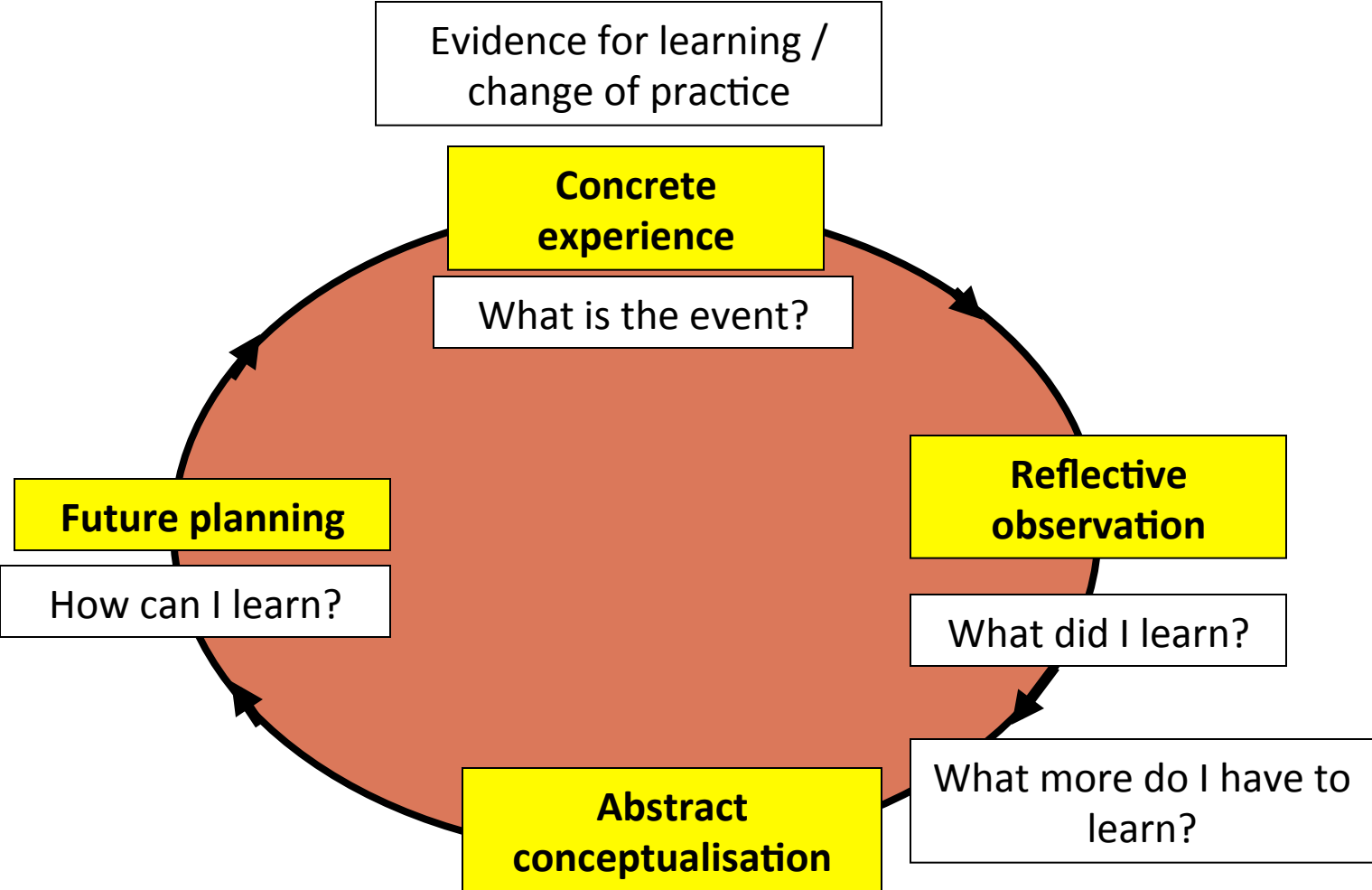
Kolb's cycle



Reflective cycle: a simplified version

- 1. What is the learning event?**
- 2. What did I learn?**
- 3. What more do I have to learn?**
- 4. How can I learn it?**
- 5. Evidence for further learning /
change of practice?**

Reflection



Why should you participate in other non-academic activities?

They provide a rich source of learning experiences for you to develop a lot of abilities

- Communication/interpersonal skills
- Team work and leadership
- Decision making
- Organisational and management abilities
- Attitudes
- Personal development

Key to **holistic education**



Average Learning Retention Rates

Source: National Training Laboratories, Bethel, Maine

Summary

Learning in university is fundamentally different from learning in secondary school

Active and deep learning is the key to success in the university (and in later life)

Identify the learning style that suits you best to achieve deep learning and use it to the maximum

Try to learn from all experiences (both academic and non-academic) in the university

FINALLY:

Take home messages from your outstanding colleagues (published evidence from our KSU study):

13 key factors for academic success:

What factors determine academic achievement in high achieving undergraduate medical students? A qualitative study

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Abstract

Background: Medical students' academic achievement is affected by many factors such as motivational beliefs and emotions. Although students with high intellectual capacity are selected to study medicine, their academic performance varies widely.

Objectives: The aim of this study is to explore the high achieving students' perceptions of factors contributing to academic achievement.

Materials and methods: Focus group discussions (FGD) were carried out with 10 male and 9 female high achieving (scores more than 85% in all tests) students, from the second, third, fourth and fifth academic years. During the FGDs, the students were

What factors determine academic achievement in high achieving undergraduate medical students? A qualitative study.

Abdulghani et al. Medical Teacher 2014, 36: S43–S48

Thirteen factors influencing high academic achievement include:

1. Attendance to lectures,
2. Early revision,
3. Prioritization of learning needs,
4. Deep learning,
5. Learning in small groups,
6. Mind mapping,
7. Learning in skills lab,
8. Learning with patients,
9. Learning from mistakes,
10. time management,
11. family support.
12. Internal motivation and
13. Expected examination results

**I wish you a very
successful and enjoyable
time in your course**

**All the
best**

THANK
YOU

