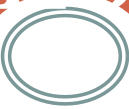


# Basic Principles & Concepts in Learning (Learning how to learn)



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# 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 result 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***



➤ **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**  
different to  
learning & studying as  
a **secondary school student**?**

## How different is adult learning?

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

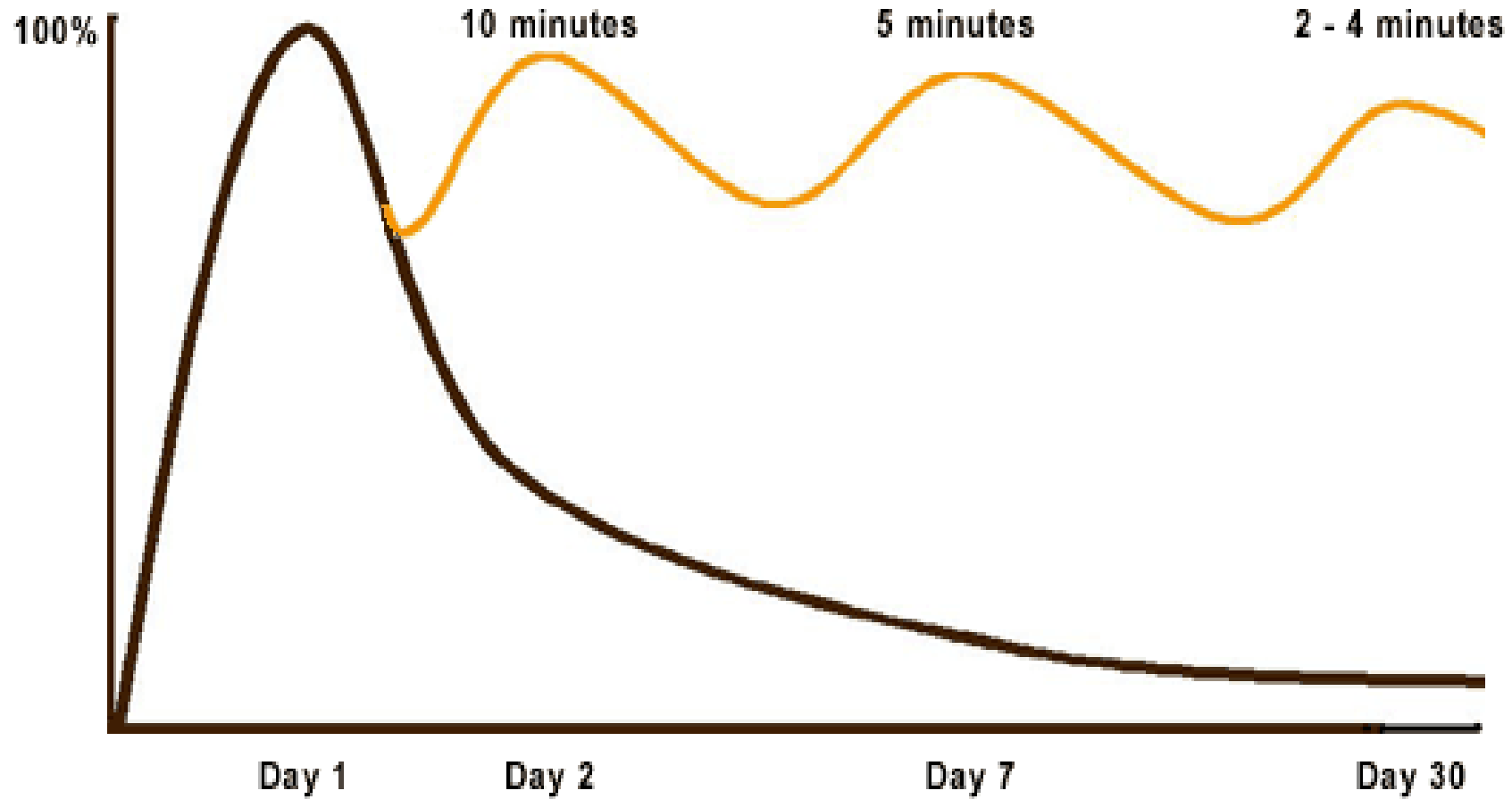
# How to shift information from short term to long term memory?


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

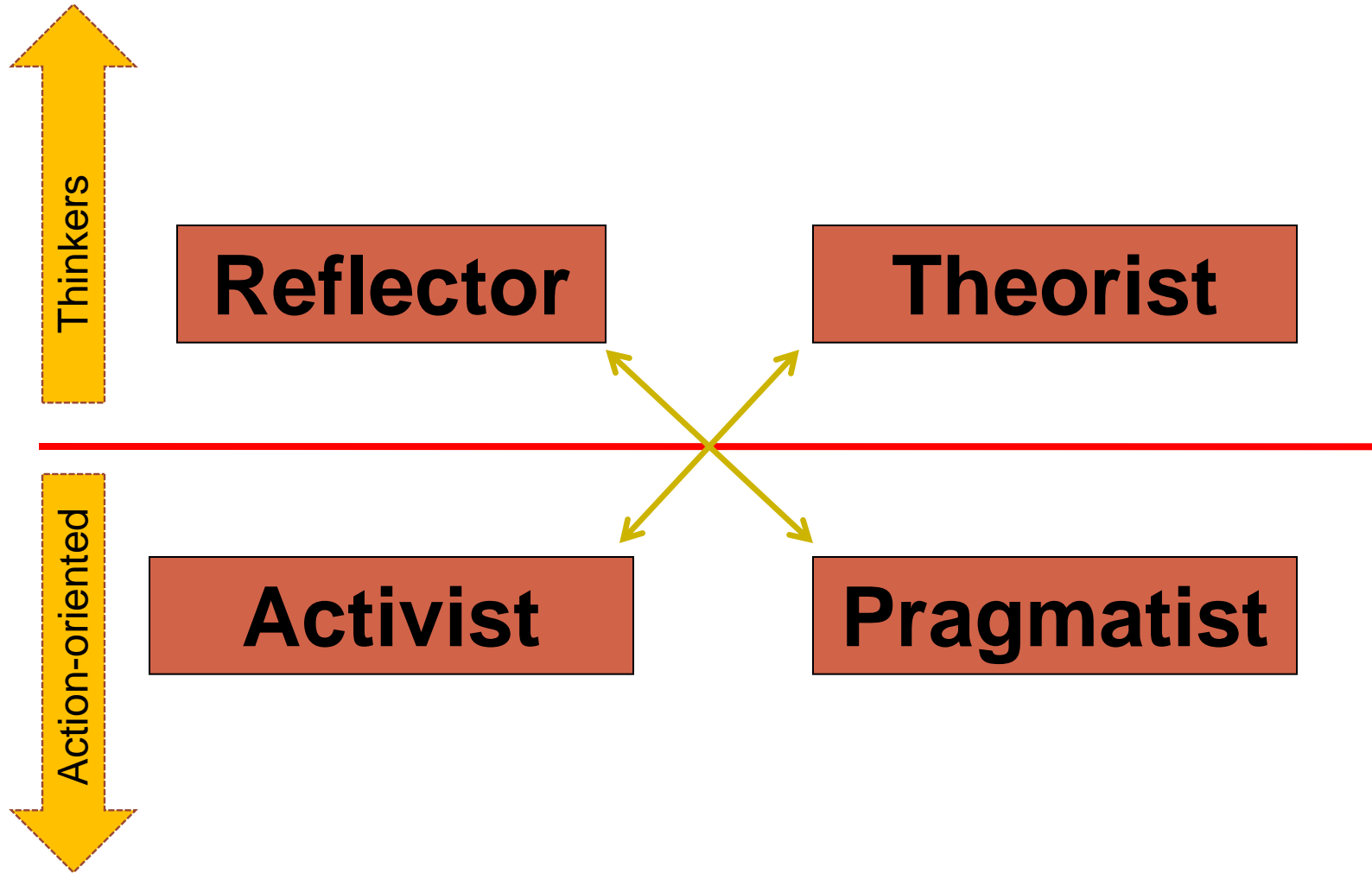
**Visual learner**

**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.



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## **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 <b>LISTEN</b> to a lecture, a presentation, or an audiotape.</p>	<p>Remember best when they <b>SEE</b> (create) mental images of what they hear or read.</p>	<p>Remember best when they <b>READ</b> the written word (textbooks, memos, and e-mail messages).</p>	<p>Remember best by <b>DOING</b> rather than sitting and listening, reading, or thinking about the information.</p>	<p>Remember best when they <b>DISCUSS</b> 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

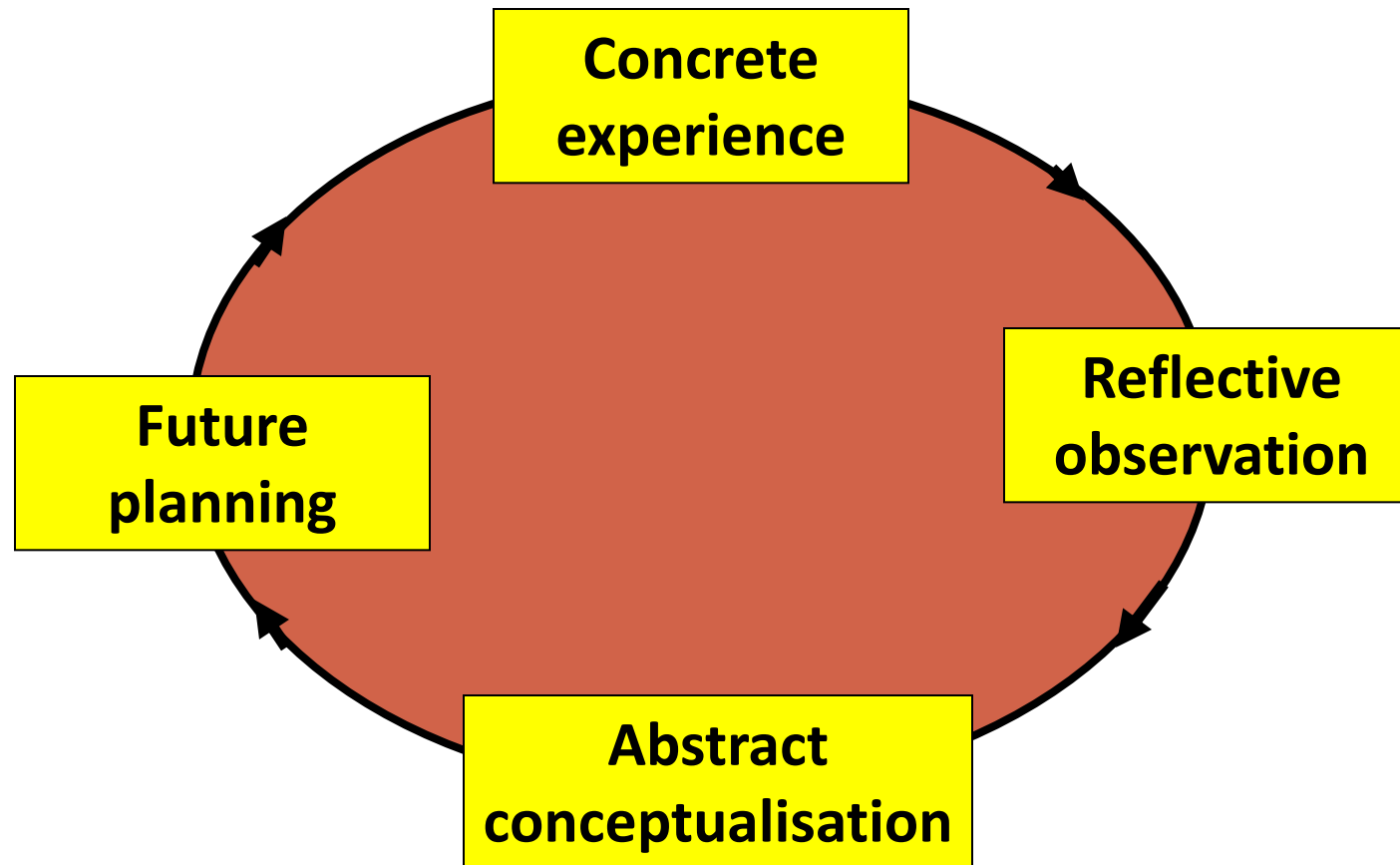
What is a **learning experience**?

Any incident that you either participate in or see/hear

# Reflection - cyclical process

- many ways

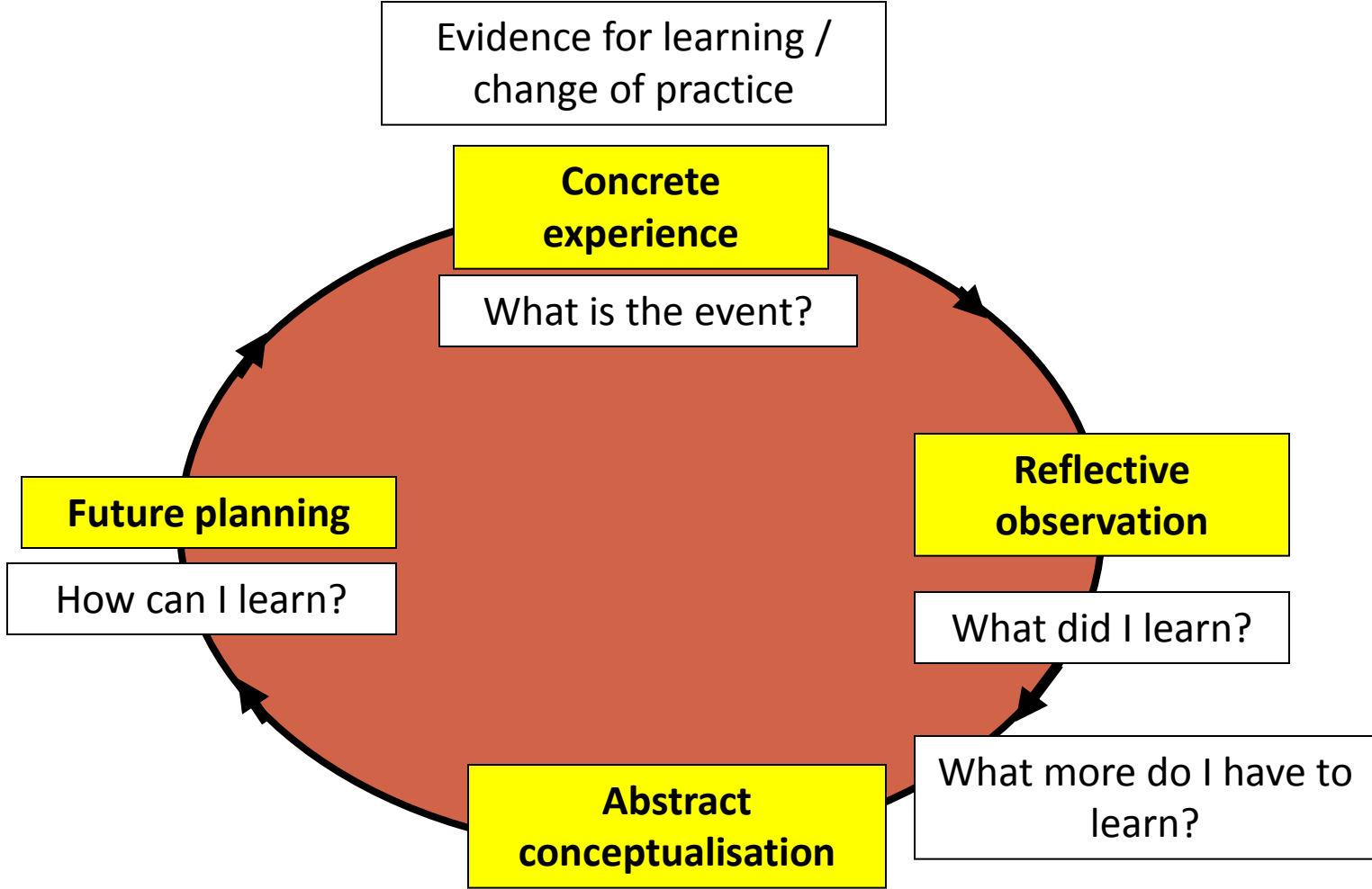
## Kolb's cycle



## **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**

# 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**

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

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

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**



**Average Learning Retention Rates**

Source: National Training Laboratories, Bethel, Maine



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

*All the best*

THANK  
YOU

