

Becoming a  
**Problem-Based Learning  
student**

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**“The teacher is a  
midwife to students  
pregnant with ideas”**

**- Socrates (469-399 BC)**



**وتركيب العنبر على هذا المثال**

المقالة الثانية في طبيعة الدماغ ومناقضه وتربصه بالاراد  
 معونه بلطيف العزائم فيون بطبيعته والاراد تعالى الذمات من اقله  
 وشبهها في علمها يرجع اليه وانما يعرف الانسان بطبيعته التي اما يعرفه وانما  
 اختار صفة التي هو مختار بها فلذلك لا يشك في علمه ان علمه بلطيف الدماغ  
 ذم التي التي هو مختار به فيقول ان كل عضو من الاعضاء التي هي  
 اجودها من عنصريه من طبيعته والاخر من غيره من غيره من غيره  
 والاراد ايضا انما هي صفة التي هي مختار بها من اجودها شيئا من غيره من غيره  
 ان يقول ان الارباع عضو اياراد ابرد اعضا البدن واطبقا في القول الاخر  
 من غيره والعاجية اليه وهو ان يقول ان الارباع ابرد العنبر والحر والاراد  
 الاراد به والسياسة وكله في كل من خصص الارباع ذم غيره من غيره  
 اما العنبر الاول وهو ان الارباع ابرد اعضا البدن واطبقا فانها لا  
 شيئا من الارباع ابرد الارباع لانه ليس في البدن عضو ابرد من الارباع  
 ولا ابرد منه وذلك لما اتى في الكتاب بعد ايضا فيقول الارباع هي  
 الحس والثاني الثالث ان الارباع ابرد العنبر والحر والاراد  
 والسياسة فانها ايضا الارباع على بعض سوا الارباع وذلك ان الارباع على



# Long Class

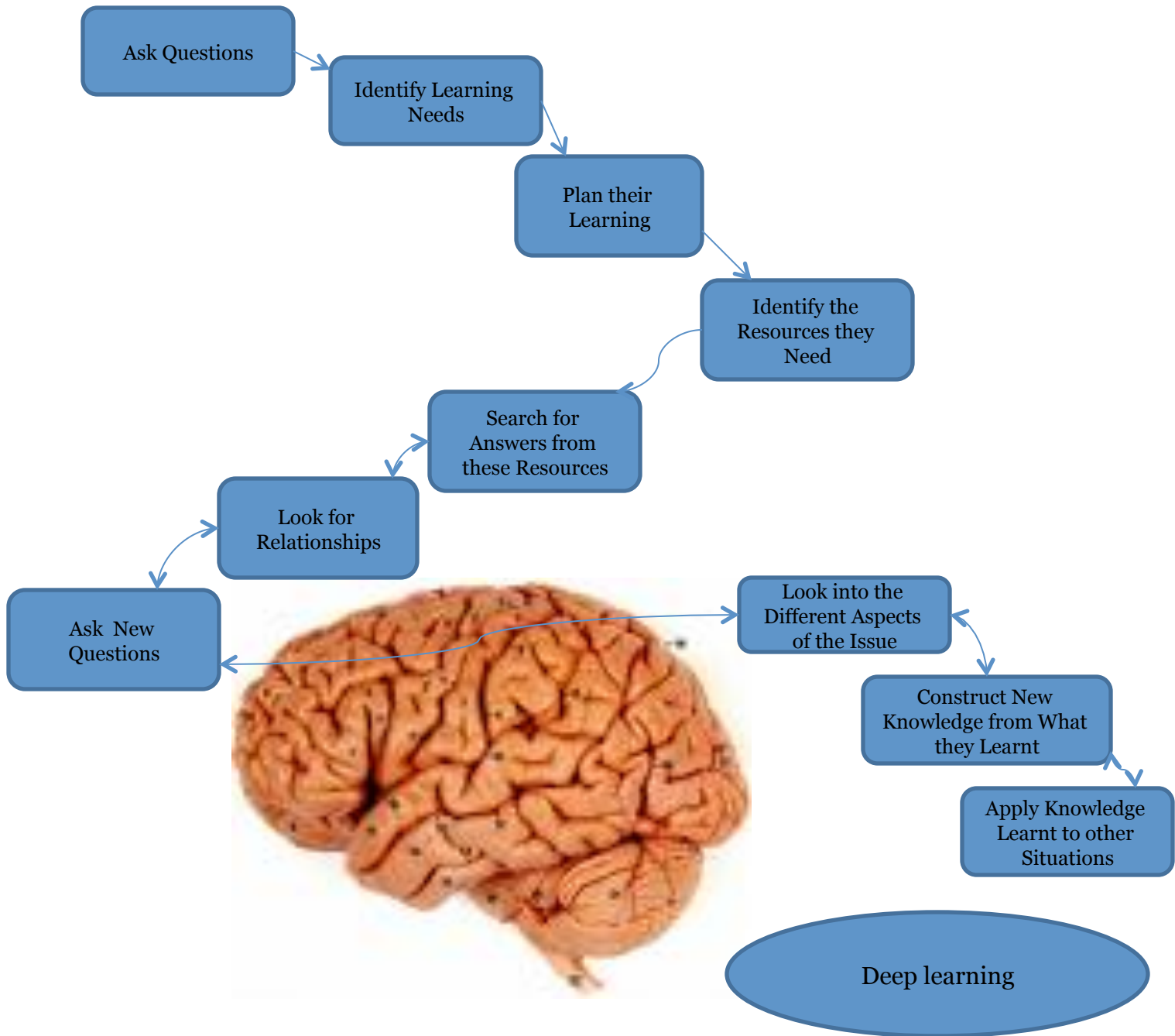


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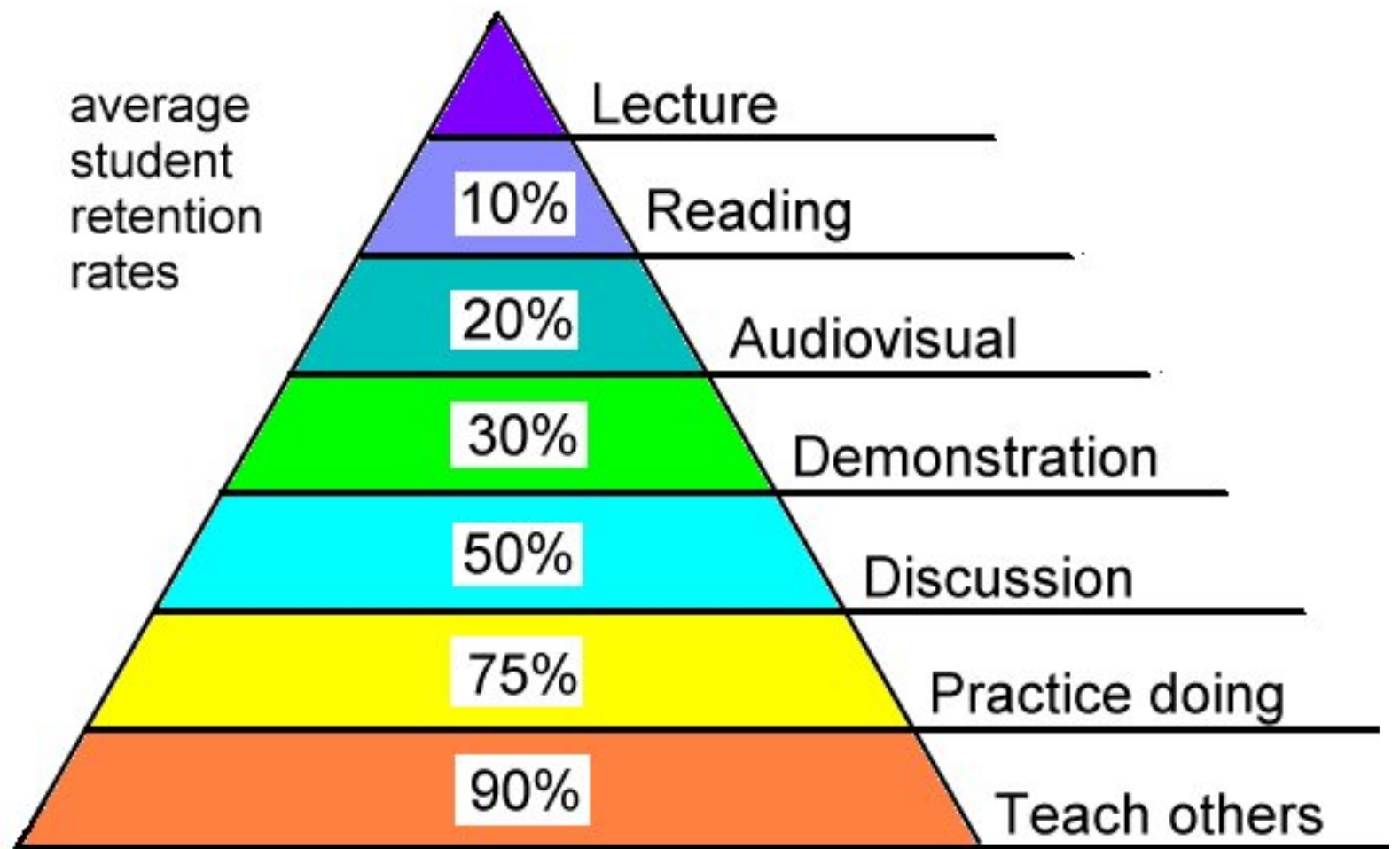
Transfer of  
Information



Superficial  
learning



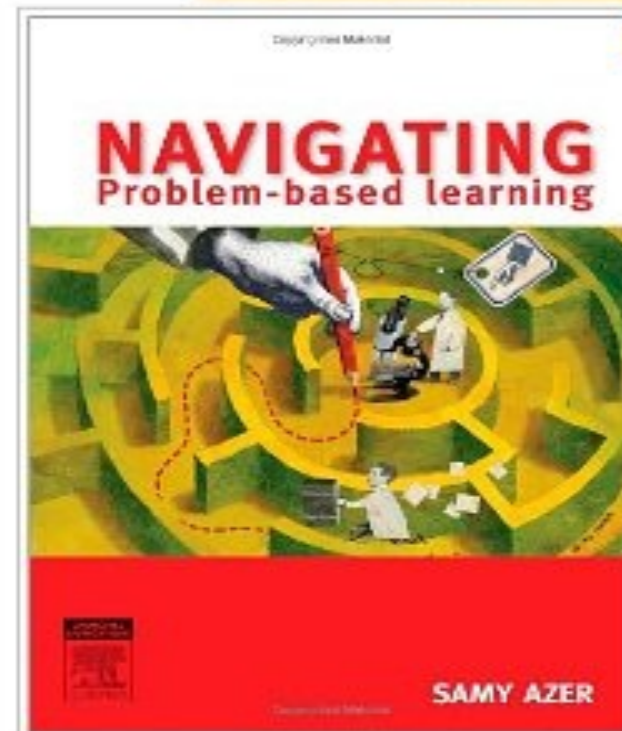
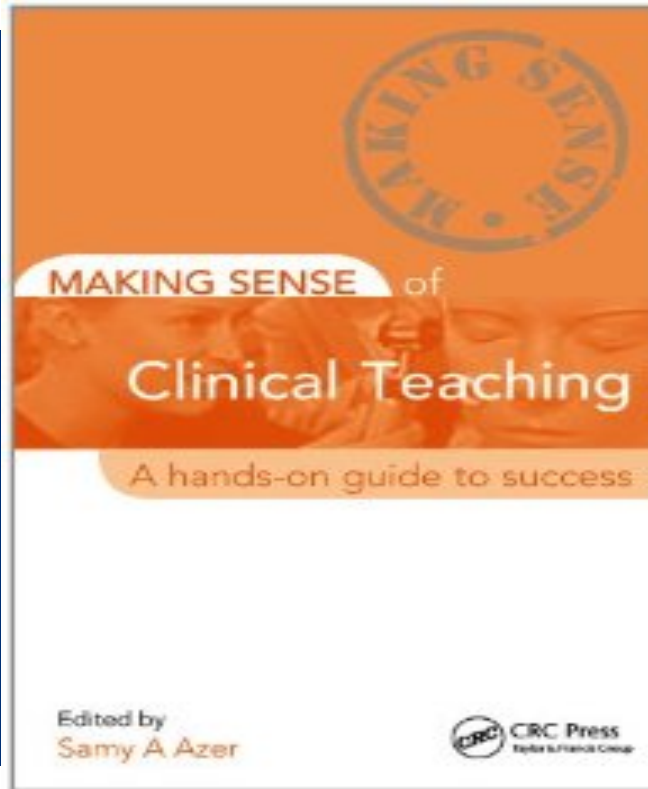
# Learning Pyramid



Source: National Training Laboratories, Bethel, Maine



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## Educational Objectives of PBL: Integration



Integration of basic and clinical sciences.

Integration of related ethical and biopsychosocial issues.

Making links, understanding relationships, understanding concepts such as structural-functional relationships, pathogenesis and mechanisms.

## Educational Objectives of PBL: Self-directed learning



Focusing on how to learn and what to learn.

Enhancing Student's skills in identifying their learning needs, search different resources, construct their knowledge, link what they have learnt to the case, become self-regulated learners.

## Educational Objectives of PBL: Cognitive skills



Identify problems. Generate hypotheses. Make an enquiry plan. Refine their hypotheses on the bases of evidence from history and examination. Interpret findings and investigation results. Make decisions. Construct a management plan.

## Educational Objectives of PBL: Small group learning



Sharing ideas. Exchanging knowledge. Communicating effectively.  
Enhancing their listening skills. Working as a team. Building each other.  
Practicing peer-teaching. Learning how to focus on self and other  
members in the team.

# Why do we need PBL?

- The need for professionals and graduates to address the changes in our communities. For example, adopting customer-centered care.
- Information explosion in all areas/disciplines and the recent developments of information technology.

# Why do we need PBL?

- A need for all professionals to be competent not just in knowledge and related theories but also in a number of cognitive and non-cognitive skills- such as interpersonal and communication skills, empathy and professionalism.
- Changing organization structure and the need for multiprofessional education.
- Regardless to your profession, all of us on a daily basis face problems and we need to work out solutions.

# Trigger

(40 Minutes)

“Reda Gamal, an 18-year-old first-year Agriculture student at a university in Riyadh, decides to participate in a state race organised by the university students’ union. It is only the second week in his course and he feels stressed. Also he is a little worried being away from his family in Medina. It is midmorning, very hot and Reda is sweating a lot during the race. About 50 minutes into the race, he suddenly collapses.

”

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# Trigger

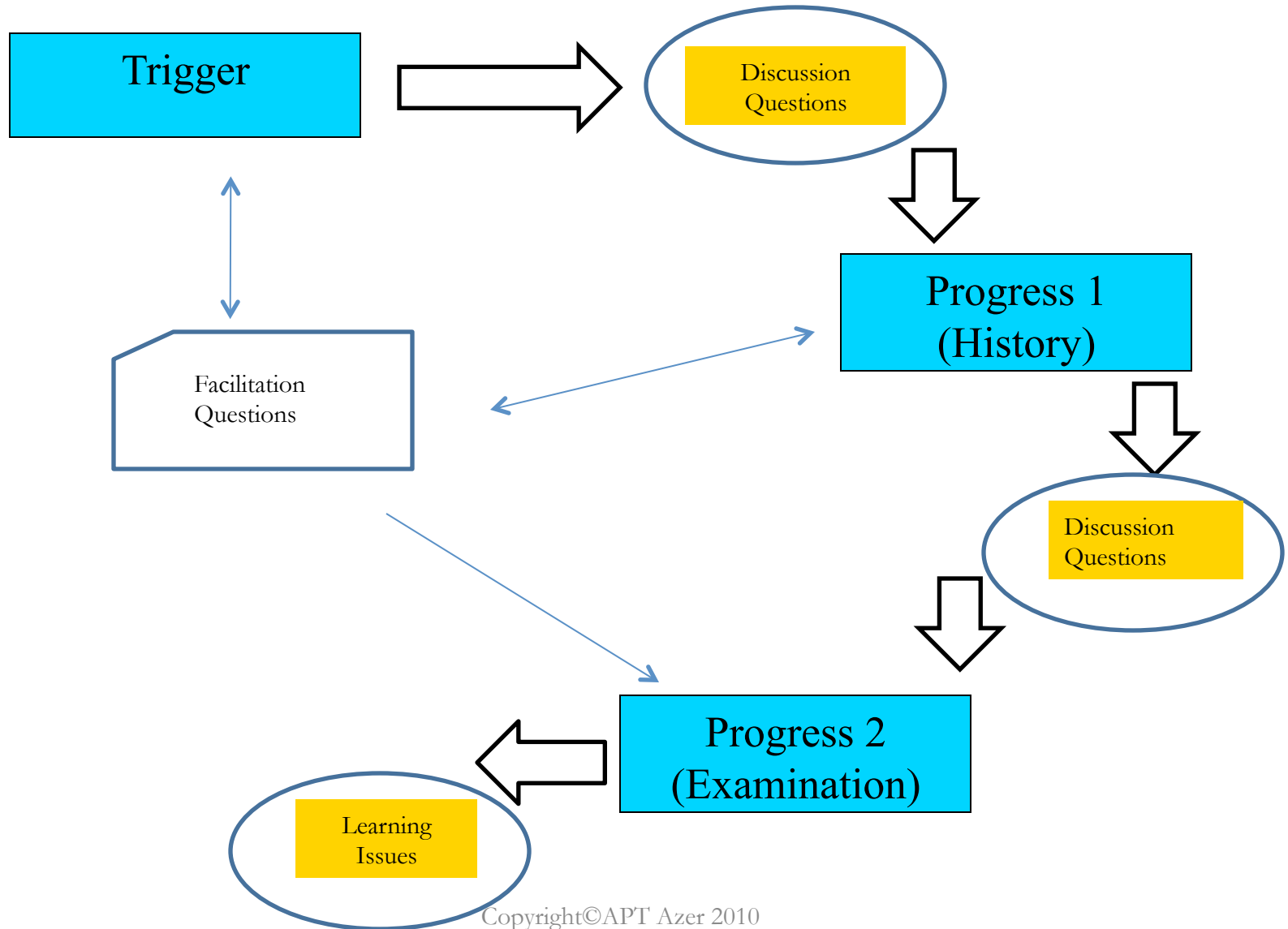
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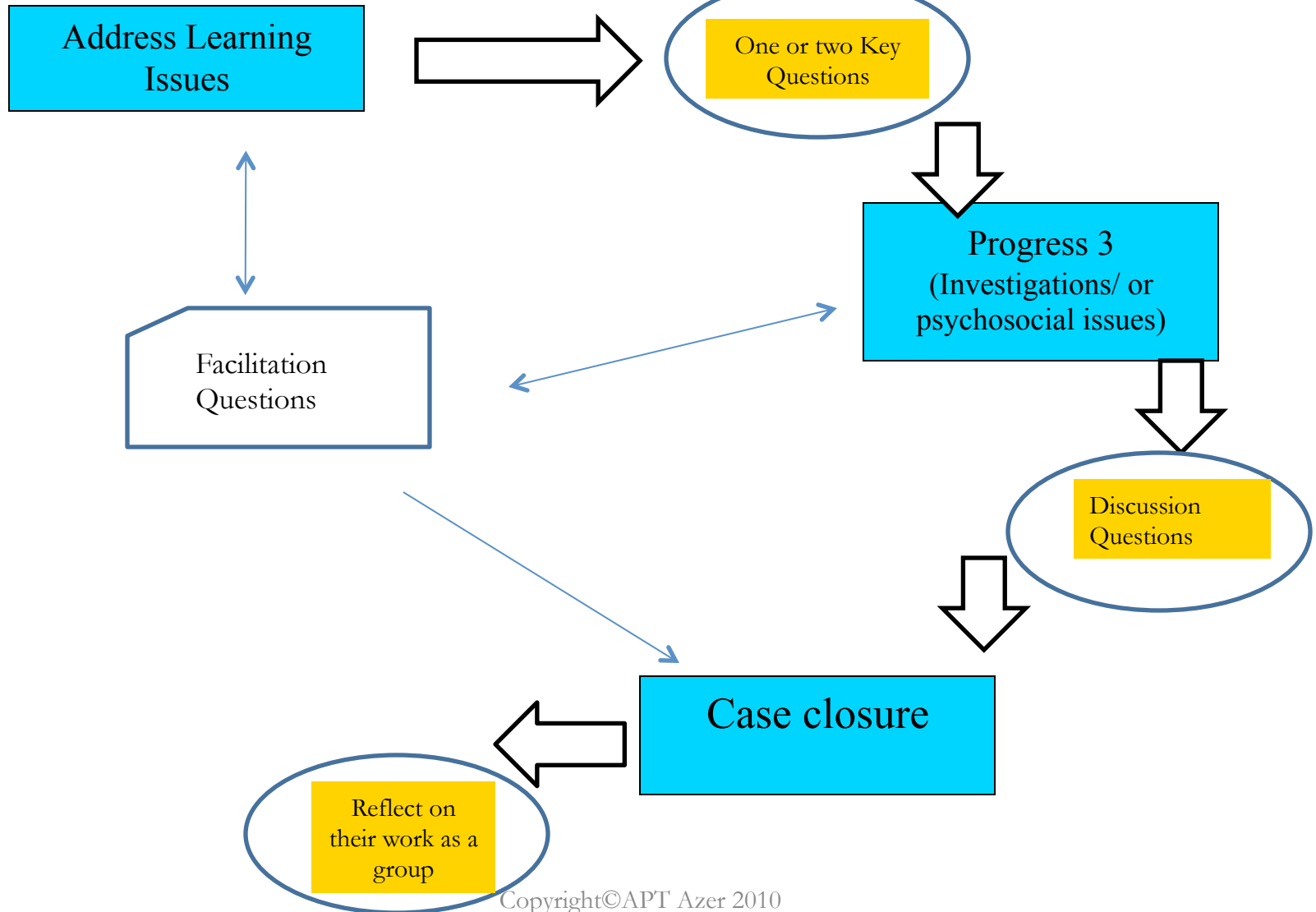
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# TUTORIAL ONE (2 Hours)



# TUTORIAL TWO (2 hours)



## What are the roles of students in PBL?



- **Students learn how to apply knowledge to real-life situations, while in a traditional course they learn how to focus on factual knowledge.**
- **Students become producer of information (construct information), while in a traditional course they consume knowledge.**

## What are the roles of students in PBL?



- **Students actively analyse information, while in a traditional course they accept knowledge as it is.**

# Discussion Questions

## Nobel Laureates

Do you know a Nobel prize winner whose work has helped in understanding physiological principles related to this case. Discuss how his/her work helped in advancement of our knowledge in this area.

Students may spend 10 minutes discussing this issue. Those interested could submit a written submission to my on my email [sazer@ksu.edu.sa](mailto:sazer@ksu.edu.sa)

# Keys for Successful Discussion in Problem-Based Learning Tutorials

# Keys for Successful Discussion



## Key 1

### Maintain ground rules

*“Set the ground rules and make sure it feels right.”*

**Gary Ambrose**



# Keys for Successful Discussion



## Key 2

### Know your roles

Groups function better when every member is aware of the different roles a group member should undertake.



# Keys for Successful Discussion



## Key 3

### Foster group dynamics

*“Doing things the same way you always have and expecting the results to be different is insanity.”*

**- Albert Einstein**

# Keys for Successful Discussion



## Key 4

### Ask empowering questions



*“Asking a good question requires students to think harder than giving a good answer”*

*- Robert Fisher*

# Keys for Successful Discussion



## Key 5

**Without feedback there would be no champions**

*“Champions know that success is inevitable; that there is no such thing as failure, only feedback. They know that the best way for forecast the future is to create it.”*

**- Michael J.  
Gelb**

# Keys for Successful Discussion



## Key 6

**Know the roles of your  
tutor**

*“Curiosity is one of the permanent and  
certain characteristics of a vigorous  
mind.”*

**Samuel Johnson**