



Command Words and Blooms Taxonomy

Training workshop on Testing and Assessment - PIEAS and HEC

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Presentation outline

- Introduction
- Competency Learning Stages Model
- Blooms Taxonomy **Learning Domains**
- Using Bloom's Taxonomy
- Conclusion

Competency Learning Stage Model

Cognitive Knowledge

- *Recall*
- *Understand*
- *Apply*
- *Analyze*
- *Synthesize*
- *Evaluate*

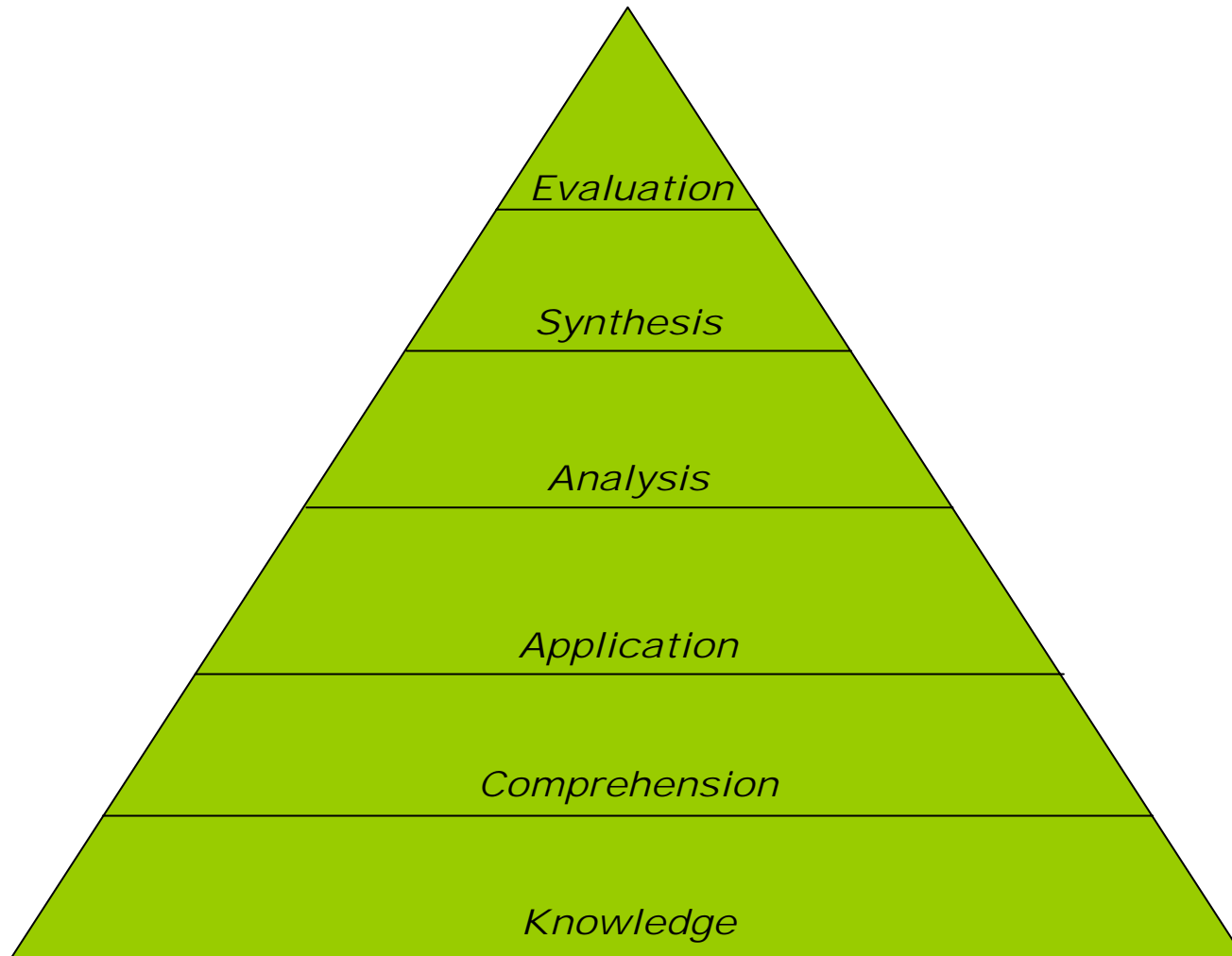
Affective Attitude

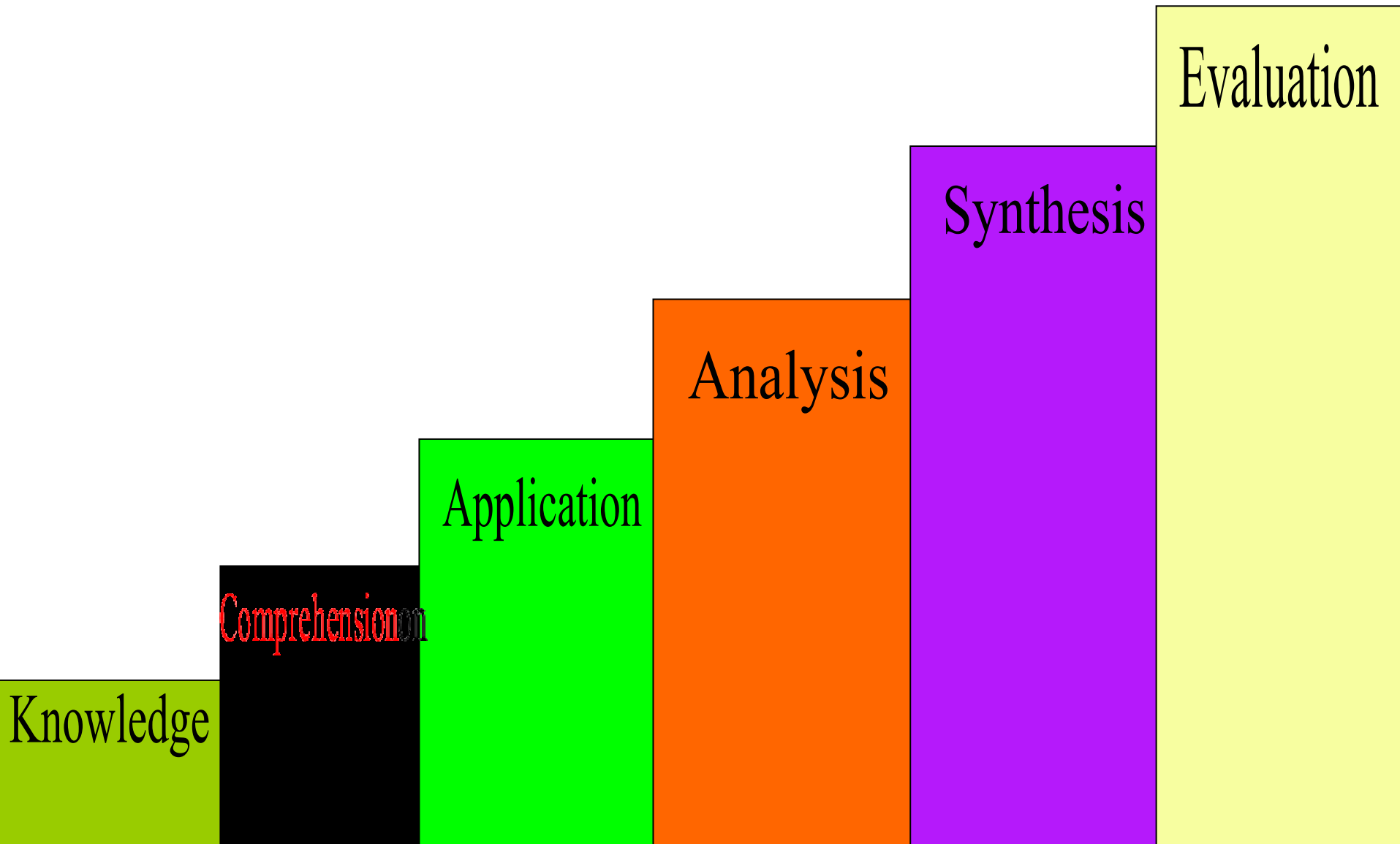
- *A1: Receptive*
- *A2: Response*
- *A3: Internalization*

Psychomotor Skills

- *P1: Imitation*
- *P2: Control*
- *P3: Automatic*

Higher-Level Thinking Skills





Bloom

Revised Bloom

- **Evaluation**

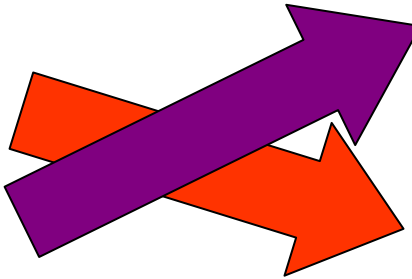
- **Synthesis**

- **Analysis**

- **Application**

- **Comprehension**

- **Knowledge**



- **Create**

- **Evaluate**

- **Analyze**

- **Apply**

- **Understand**

- **Remember**

Benjamin Bloom's Taxonomy of Thinking Skills

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
List Name Identify Show Define Recognize Recall State Visualize	Summarize Explain Interpret Describe Compare Paraphrase Differentiate Demonstrate Classify	Solve Illustrate Calculate Use Interpret Relate Manipulate Apply Modify	Analyze Organize Deduce Contrast Compare Distinguish Discuss Plan Devise	Design Hypothesize Support Schematize Write Report Justify	Evaluate Choose Estimate Judge Defend Criticize

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives, Vol.1: The cognitive domain*. New York: McKay.

Table adapted from <http://www.umuc.edu/prog/ugp/ewp/bloomtax.html>

Visit: <http://www.nwlink.com/~donclark/hrd/bloom.html>

<http://www.southrock.com/features/whitepapers/MultipleChoiceQuestions.pdf>

Knowledge

Recall or recognition of information.

- define
- classify
- describe
- locate
- outline
- give examples
- distinguish opinion from fact
- list
- name
- identify
- show
- define
- recognize
- recall
- match

Knowledge

Command Words	Exemplar Tasks
tell	What happened after ...?
list	How many ...?
describe	Who was it that...?
relate	Can you name the ...?
locate	Describe what happened at ...?
write	Who spoke to ...?
find	Can you tell why...?
state	Find the meaning of ...?
name	What is ...?

Comprehension

The ability to understand, translate, paraphrase, interpret or extrapolate material. (Predict outcome and effects).

- summarize
- explain
- interpret
- describe
- compare
- convert
- distinguish
- estimate
- paraphrase
- differentiate
- demonstrate
- visualize
- restate
- rewrite
- give examples

Comprehension

Command Words	Exemplar Tasks
explain interpret outline discuss distinguish predict restate translate compare describe	Can you write in your own words ...? Can you write a brief outline ...? What do you think could of happened next ...? Who do you think ...? What was the main idea ...? Who was the key character ...? Can you distinguish between ...? What differences exist between ...? Can you provide an example of what you mean ...?

Application

The capacity to use information and transfer knowledge from one setting to another. (Use learned material in a new situation).

- solve
- illustrate
- calculate
- interpret
- manipulate
- predict
- show
- apply
- classify
- modify
- put into practice
- demonstrate
- compute
- operate

Application

Command Words	Exemplar Tasks
<p>solve</p> <p>show</p> <p>use</p> <p>illustrate</p> <p>construct</p> <p>complete</p> <p>examine</p> <p>Classify</p>	<p>Do you know another instance where ...?</p> <p>Could this have happened in ...?</p> <p>Can you group by characteristics such as ...?</p> <p>What factors would you change if ...?</p> <p>Can you apply the method used to some experience of</p> <p>your own ...?</p> <p>What questions would you ask of ...?</p> <p>From the information given, can you develop a set of instruction about ...?</p> <p>Would this information be useful if you had a ...?</p>

Analysis

Identifying detail and having the ability to discover and differentiate the component parts of a situation or information.

- analyze
- organize
- deduce
- choose
- diagram
- discriminate
- contrast
- compare
- distinguish
- categories
- outline
- relate

Analysis

Command Words	Exemplar Tasks
distinguish examine compare contrast investigate categorise identify explain separate advertise	Which events could have happened? I ... happened, what might the ending have been? How was this similar to...? What was the underlying theme of...? What do you see as other possible outcomes? Why did ... changes occur? Can you compare your ... with that presented in...? Can you explain what must have happened when...? How is ... similar to...? What are some of the problems of ...? Can you distinguish between ...? What were some of the motives behind...? What was the turning point in the game? What was the problem with...?

Synthesis

The ability to combine parts to create the big picture.

- design
- hypothesize
- support
- write
- report
- combine
- comply
- develop
- discuss
- plan
- compare
- create
- construct
- rearrange
- compose
- organize

Synthesis

Command Words	Exemplar Tasks
create invent compose predict plan construct design imagine propose devise formulate	Can you design a ... to ...? Can you see a possible solution to ...? If you had access to all resources how would you deal with ...? Why don't you devise your own way to deal with ...? What would happen if ...? How many ways can you ...? Can you create new and unusual uses for ...? Can you develop a proposal which would...

Evaluation

The ability to judge the value or use of information using appropriate criteria. (Support judgment with reason).

- evaluate
- choose
- estimate
- judge
- defend
- appraise
- criticize
- justify
- debate
- support your reason
- conclude
- assess
- rate

Evaluation

Command Words	Exemplar Tasks
judge	Is there a better solution to ...
select	Judge the value of...
choose	Can you defend your position about...?
decide	Do you think ... is a good or a bad thing?
justify	How would you have handled...?
debate	What changed to ... would you recommend?
verify	Do you believe?
argue	Are you a ... person?
recommend	How would you feel if...?
assess	How effective are...?
discuss rate	What do you think about...?
prioritise	
determine	

Command Words

- State
 - What name is given to this process?
- Describe
 - Describe the process
- Explain
 - Explain how the process occurred
- Suggest
 - Suggest why the process stopped

Command Words Cont...

- Calculate
 - Calculate the energy requirement for...
- Draw
 - Draw a map of Pakistan to show...
- Predict
 - Predict the population after 5 years

Command Words Cont...

- Grids
 - Identify one or more items from a number of boxes.
- Sequence
 - Place a list of items or instructions into a correct sequence
- Match
 - Match two sets of information

Definitions of Command Words

Account for: Spells out a chronology and shows in what ways the event or circumstance to be accounted for derives from or is dependent on earlier events or alternatively is a departure from expectation attributable to the emergence of a new individual or idea.

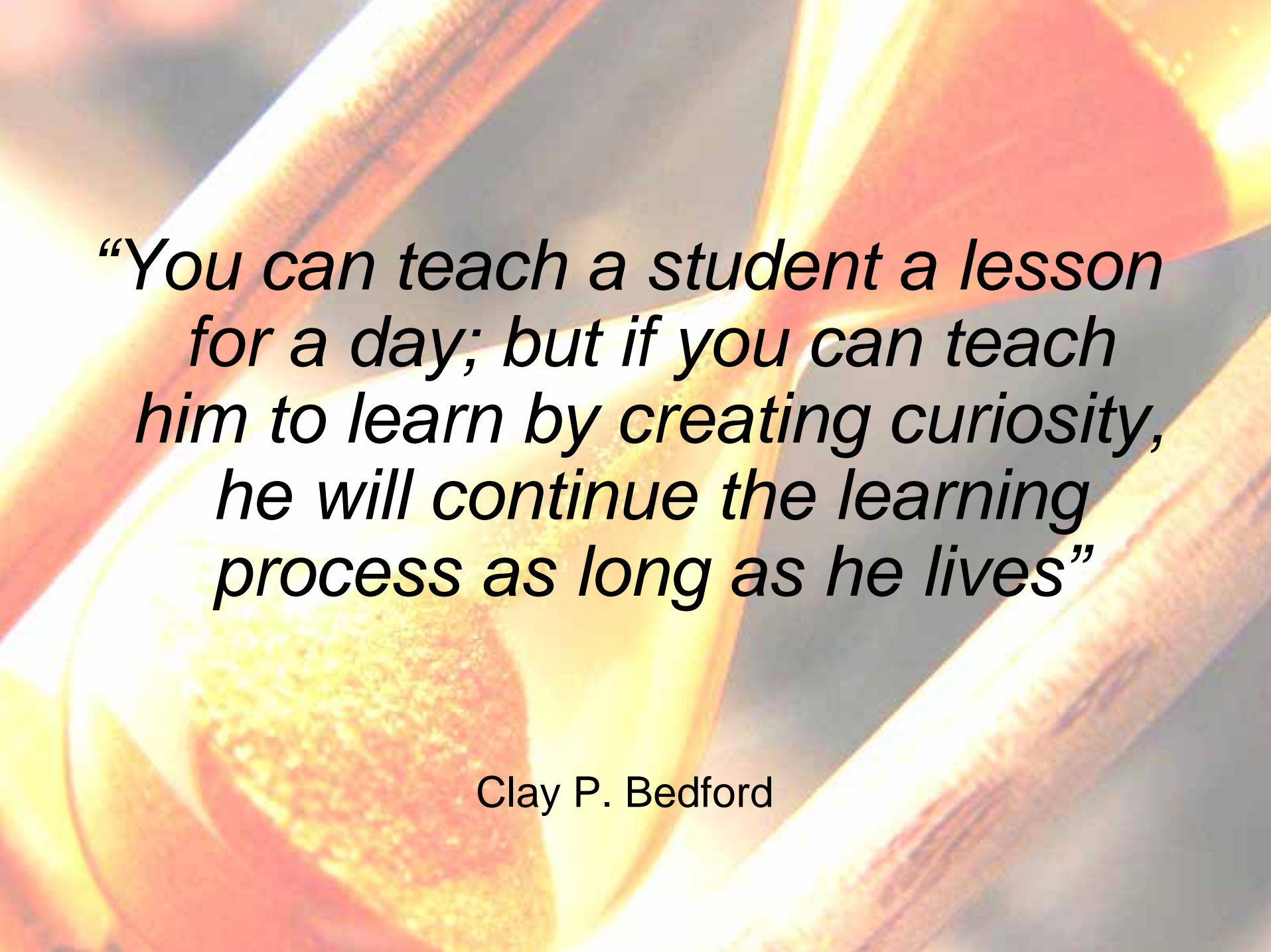
Analyse: Goes beyond the facts of the case to spell out the relationships between men, ideas and circumstances and in particular to differentiate cause from effects. A good answer will make it clear which relationships are matter of fact and which are conjecture or hypothesis, e.g. X was Y's son but whether he was a loving son we cannot be sure; both X and Y fought for independence but their private motives for doing so appear to have been very different.

Definitions of Command Words

Compare:	List the main characteristics of two entities clearly identifying similarities (and differences).
Define:	Usually asks for a definition of terms. Only a formal statement of an equivalent phrase is required. No examples need to be given. The answer need not be in the form of a complete sentence.
Describe:	Is usually an invitation to show understanding of other times and to enter into an empathic appreciation of different behavioural norms and the reasons for them.
Differentiate:	Identify those characteristics which are the defining features of two concepts or phenomena.
Discuss:	Requires candidates to give a critical account of the points involved in the topic. There should be an introductory paragraph setting the scene, like points should be drawn together in paragraphs in the body of the text and lead to a conclusion which follows reasonably from the central section.
Draw a sketch map:	A successful response has five attributes: the shape of the area is recognizable, the scale is given in sensible units, north is indicated, salient topographical features are symbolized and of course the relative positions of key locations are approximately correct.

Definitions of Command Words

Evaluate:	Is based on analysis but goes beyond analysis to reach a judgment of value or worth, e.g. "...as Mogul emperors go X was a good emperor because".
Explain:	Should include reference to individual motives and social pressures and indicate how it came about that either the individual, a small group with a big idea or the wider society shaped events.
Give an account of:	Asks for a narrative or story and is judged on its chronological accuracy.
Give examples of:	Has the form of a list but it is usually expected that each example listed will have a sentence or two of explanation of why it can be said to be an example of the category required.
Identify:	Describe with specific examples of how a given term or concept is applied in daily life.
List:	Requires a number of points, generally each of one word, with no elaboration. Where a given number of points are specified this should not be exceeded.
Relate:	Describe how events depend upon, follow from or are part of a greater whole.
State:	Invites a statement of fact. No justification or explanation is expected.



*“You can teach a student a lesson
for a day; but if you can teach
him to learn by creating curiosity,
he will continue the learning
process as long as he lives”*

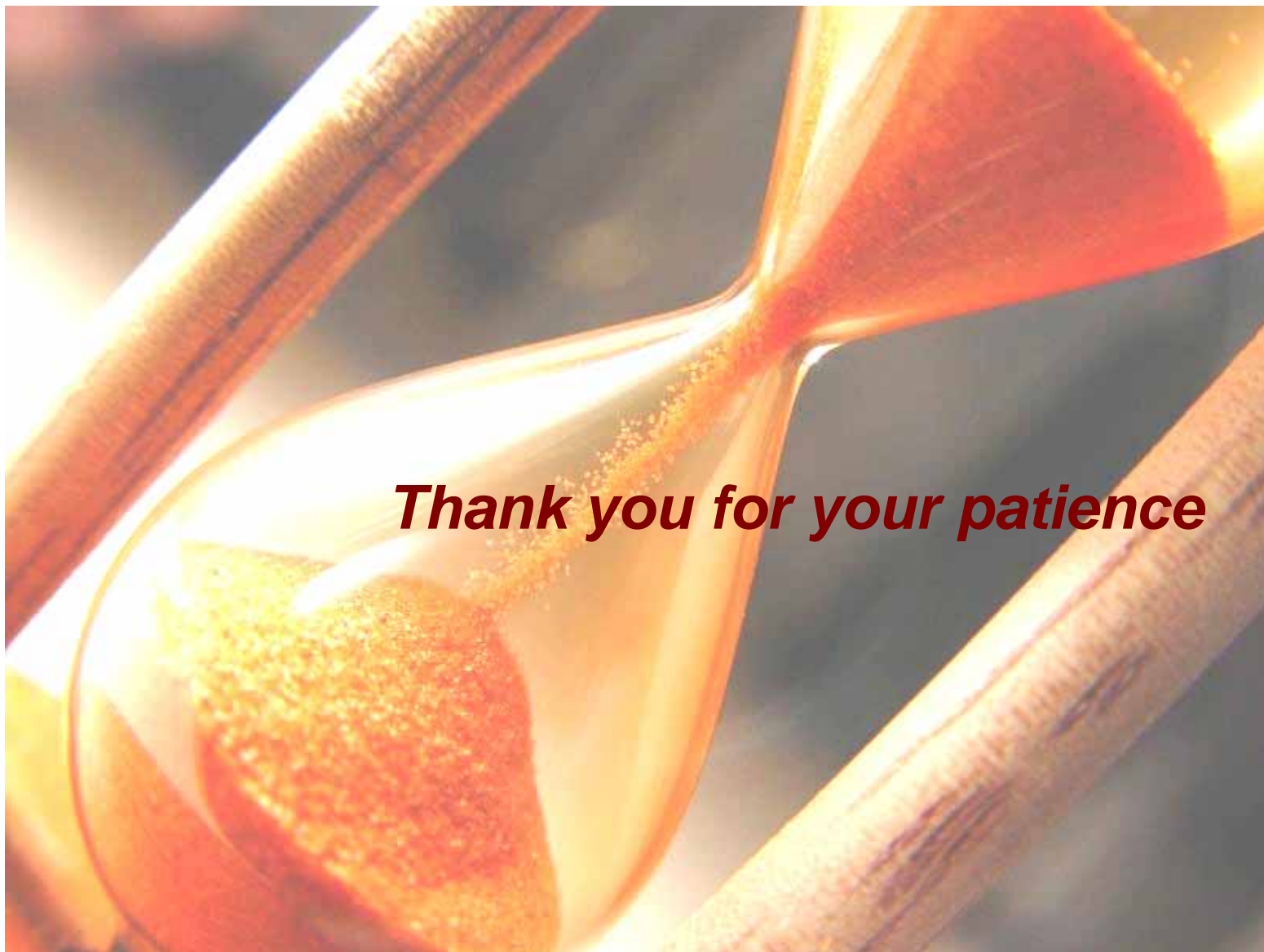
Clay P. Bedford

“You know that the importance of education and the right type of education, cannot be overemphasize. Under foreign rule for over a century, sufficient attention has not been paid to the education of our people and if we are to make real, speedy, and substantial progress, we must earnestly tackle this question and bring our educational policy and program on the lines suited to the genius of our people, in consonance with our history and culture, and having regard to the modern conditions and vast developments that have taken place all over the world. There is no doubt that the future of our State will and must greatly depend upon the type of education we give to our children, and the way in which we bring them up as future citizens of Pakistan. Education does not merely mean academic education. ...



There is immediate and urgent need for giving scientific and technical education to our people in order to build up our future economic life and to see that our people take to science, commerce, trade and particularly well-planned industries. We should not forget that we have to compete with the world which is moving very fast in this direction. At the same time we have to build up the character of our future generation. We should try, by sound education, to instill into them the highest sense of honor, integrity, responsibility and selfless service to the nation. We have to see that they are fully qualified and equipped to play their part in various branches of national life in a manner, which will do honor to Pakistan”.

Quaid - e - Azam



Thank you for your patience