

Teaching Learning and Assessment: Techniques and Methods

Institutional quality Assurance Cell (IQAC)

Rajshahi University

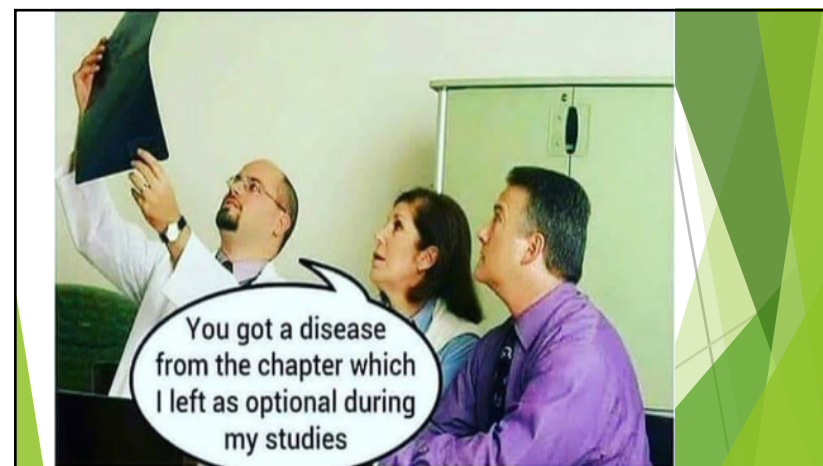
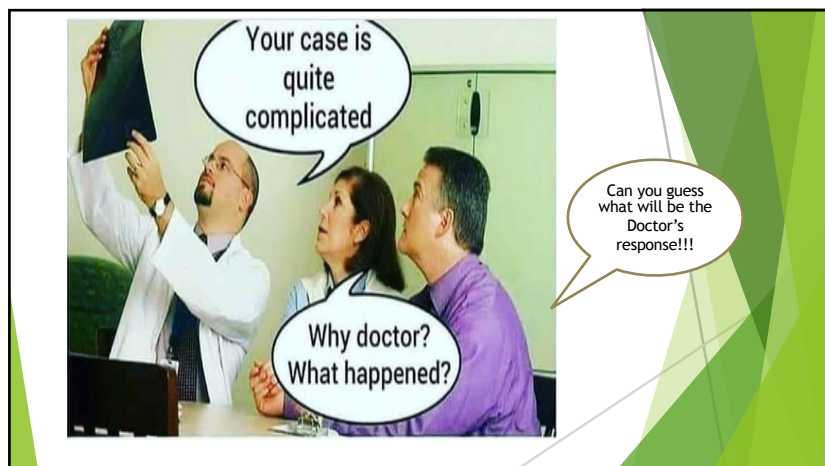
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Rethinking of Teaching Approach for Learning



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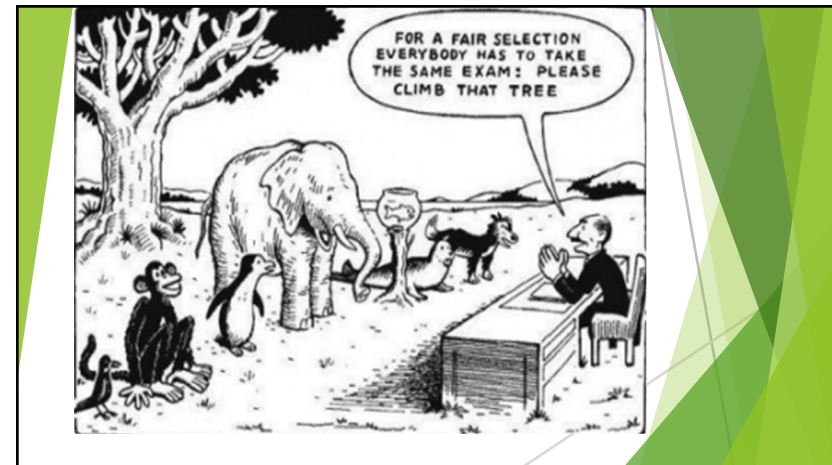




প্রশ্নঃ ঢাকা কোন নদীর তীরে অবস্থিত?

উত্তরঃ ভূড়িঘাঙ্গা

মূল্যায়নঃ সঠিক ১/১ পূর্ণ ০/১
??



Teaching \propto *Students' Learning*

Teaching = $k \times$ *Students' Learning*

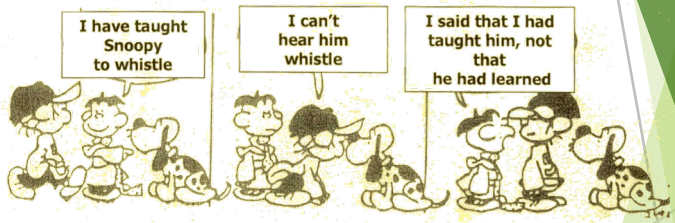
Value of 'k' = ???? ($1 < k > 1$)

What can be the name of the constant *k*

Factors affecting the value of 'k' = ????

Students study for exam, not study for learning

I have heard the Story 28 Years back....



.....from one of my Teachers when I was Undergrad Student

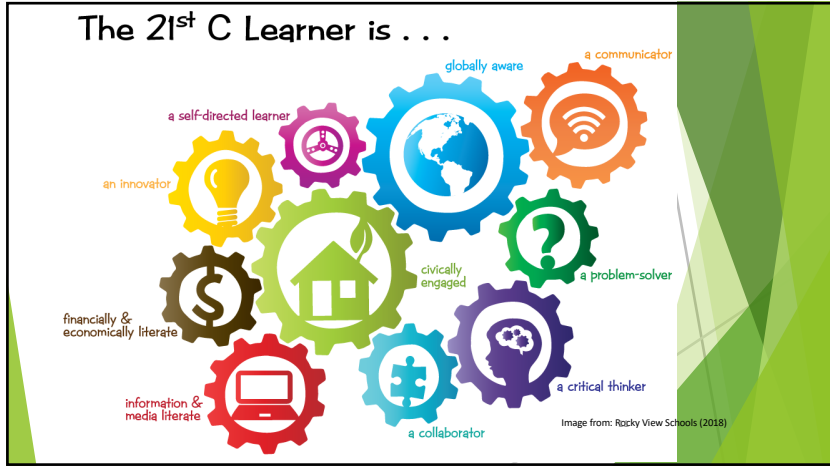
*To be called teaching learning must occur
- without assessment we don't know if
learning is occurring - therefore without
assessment it can't be called teaching*

*"The mediocre teacher tells. The good teacher explains.
The superior teacher demonstrates. The great teacher
inspires."*

~William Ward

*"The average teacher explains complexity; the gifted
teacher reveals simplicity."*

~ Robert Braut



Strategies for engaging learners:
addressing diverse approaches to
learning

Motivations for learning

Deep learners: learn for the sake of learning

- ▶ Intrinsically motivated
- ▶ Tend to embrace and enjoy challenge

Surface learners: avoid failure

- ▶ Extrinsically motivated
- ▶ Avoid challenge at all cost

Strategic learners: earn good grades

- ▶ Extrinsically motivated
- ▶ Organized form of surface learning
- ▶ Tend to avoid challenge, especially if it is incompatible with good grades

Active versus passive learning

Active learning:

- ▶ Student-centered
- ▶ Students talk
- ▶ Students construct knowledge

Passive learning:

- ▶ Teacher-centered
- ▶ Teacher is talk
- ▶ Students receive knowledge

Why Teaching Methods?

- ▶ What I hear, I forget
- ▶ What I see, I remember
- ▶ What I say, I understand
- ▶ What I do, I understand and remember

Average Understanding Rates

- | | |
|---------------------|-----|
| ▶ What I hear | 20% |
| ▶ What I see | 30% |
| ▶ What I hear & see | 50% |
| ▶ What I do | 70% |
| ▶ What I do and say | 90% |


Average Retention Rates

The Learning Pyramid

- Lecture 5%
- Reading 10%
- Audio-Visual 20%
- Demonstration 30%
- Group Discussion 50%
- Practice 75%
- Teaching Others 90%

*Adapted from National Training Laboratories. Bethel, Maine

Why is Planning so important!!!!



“If I had eight hours to chop down a tree, I’d spend six hours sharpening the axe”

Abraham Lincoln

ONLY the Exam Result is Not the Most Important Consideration

Employers Rating of Skills/Qualities

1.	Communication (verbal & written)	4.69
2.	Honesty/Integrity	4.59
3.	Teamwork skills	4.54
4.	Interpersonal skills	4.50
5.	Strong work ethics	4.46
6.	Motivation & initiative	4.42
7.	Flexibility/adaptability	4.41
8.	Analytical skills	4.36
9.	Computer skills	4.21
10.	Organisational skills	4.05
11.	Detail oriented	4.00
12.	Leadership skills	3.97
13.	Self confidence	3.95
14.	Friendly/outgoing personality	3.85
15.	Well mannered / polite	3.82
16.	Tactfulness	3.75
17.	GPA (3.0 or better)	3.68
18.	Creativity	3.59
19.	Sense of humour	3.25
20.	Entrepreneurial skills/risk taker	3.23

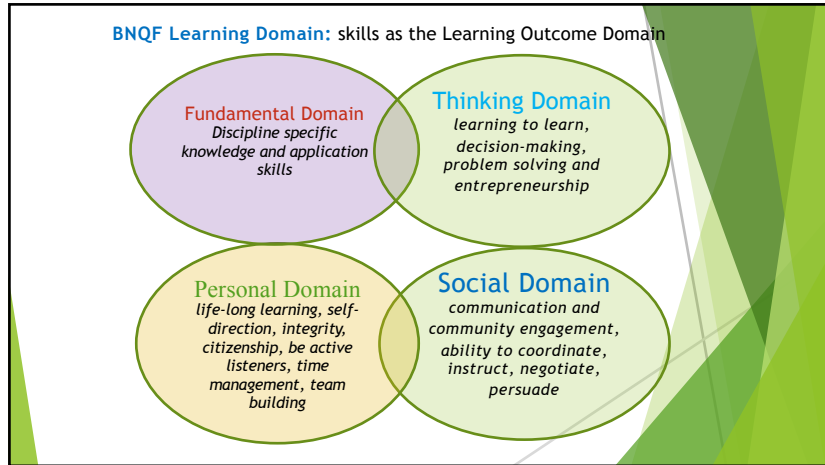
Outcome/ Learning is Important

Bloom’s Taxonomy: Three Major Domains

Cognitive
(Mental Skill, Knowledge)
What we Know ..

Psychomotor
(Manual or physical skill)
How we do ..

Affective
Growth of feelings or emotion
How we feel..



Learning Outcomes Domains and Level Descriptors as BAC's recommendation

Fundamental Domain

1. **Demonstrate knowledge** and critical understanding of the well-established principles of his/her field of study, and of the way in which those principles have developed;
2. **Apply concepts** and principles outside the context in which they were first studied--in an employment context;
3. **Apply** knowledge and skills in addressing **issues/solving problems**
4. **Evaluate critically** the appropriateness of different approaches to **solving problems** in his/her field of study;
5. Support supervision of junior staff via a **mentor or a leader/manager**
6. **Display advanced digital literacy** which is adequate to perform complex tasks and bring about solutions.

Thinking Domain

1. Exercise very substantial degree of **autonomy and often significant responsibility in making judgments/decisions** towards the management of self, others
2. **Demonstrate professional knowledge and practical skills** in both **technical and management** to lead a team in inexperienced environment.

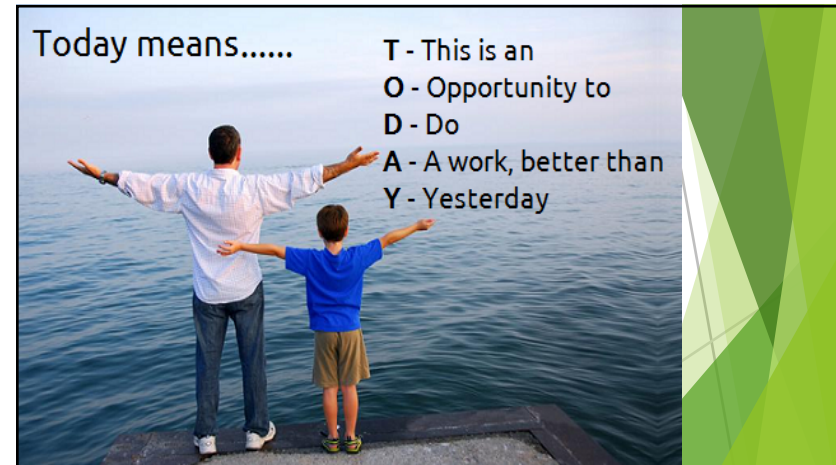
Learning Outcomes Domains and Level Descriptors as BAC's recommendation

Social Domain

1. **Communicate and interact** effectively and clearly, ideas, information, problems and solutions in Bangla and English;
Express her/himself fluently and spontaneously in English and Bangla;
Use language flexibly and effectively for **social, academic and professional purposes**;
Produce clear, well structured, detailed text on complex subjects in Bangla and English;
2. Demonstrate the ability to incorporate **entrepreneurial skills in planning** daily activities;
Display civic literacy and knowledge, exercising civic rights and obligations at all levels as well as participating in changes for the improvement of Bangladesh society

Personal Domain

1. Engage in self-direction and self-enterprise skills;
2. Demonstrate social, professional, environmental and ethical practice/ values;
3. Show-case global knowledge and competencies to fulfil employment, entrepreneurial and lifelong learning skills
4. contribute significantly to the society



About Me

Graduation and Masters: Shahjalal University of Science and Technology, Sylhet
Ph. D. (Japan, 2005), Postdoc. (Japan, 2013)
Lecturer: October 1996, Department of Chemistry
Professor (Grade-1): from July 2018
Vice Chancellor, SIU, August 2023

- ▶ Director, IQAC, SUST, (April 2019-22 May 2022)
- ▶ Additional Director, IQAC, SUST (2014-April 2019)
- ▶ Head, Department of Chemistry, SUST, (2018- 2021)
- ▶ Assistant Provost, Shahparan Hall, SSUST(2008-2010)
- ▶ Provost, Shahparan Hall, Shahjalal, (SUST)(2013-2015)
- ▶ Member, Academic Council, SUST (2010- till date)
- ▶ Part-time Teacher of Japanese Language, Institute of Modern Language (ILM), SUST (2019- Present)
- ▶ Vice President, Shahjalal University Teacher's Association, SUST (2019-20)
- ▶ General Secretary, Chemistry Alumni Association of SUST (2013-2021)
- ▶ Worked as QA expert at 30-35 Public and private universities and resourced seminar/ training in different QA aspects: Teaching-Learning, Assessment, OBE development, etc.
- ▶ Evaluated more than 40 programs in different subject area at different public and private universities
- ▶ Conducted about 14 training programs on OBE at UGC for teachers of 82 public and private Universities so far
- ▶ Master trainer of UGC and Bangladesh Accreditation Council (BAC)
- ▶ Committee Member for OBE committee, UGC

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