

# **Outcome Based Education: From A to Z**

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# Reflect and Answer

- **What is education?**
- The act or process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life  
(<https://www.dictionary.com/browse/education>)
- Education is the deliberate, systematic, and sustained effort to transmit, provoke or acquire knowledge, values, attitudes, skills or sensibilities as well as any learning that results from the effort (Cremin, p. 27)

# Outcome Based Education

- OBE is a system of education giving priority to ends, purpose, accomplishments, and results ([Rao, 2020](#))
- OBE advocates a paradigm shift from traditional practises of course credit accumulation to a focus on the students' achievement in high order learning and the mastery of cognitive thinking skills ([Tshai et al. 2014](#))
- OBE is believed to be a better measurement of the students' success in achieving the key necessary skills ([Tshai et al. 2014](#)).
- Within an institution, OBE implementation requires the restructuring of the educational programme, courses, curriculum, assessment and reporting systems ([Malan, 2000](#)).

# Reflect and Answer

- What is difference between?
- A Programme
- A Course
- A Paper

# Levels of Outcomes

- **Course learning outcomes** represent the integrated skills, knowledge and attitudes a learner will “own” upon successful completion of their course.
- **Program Outcomes** are broad statements that describe what graduates of a program will be able to “do out there” as a result of what they have learned in the program.
- **College-wide outcomes** are outcomes that are set across all programs by the institution.
- **Professional outcomes** reflect program and professional standards set nationally, provincially, territorially or by professional accrediting bodies. ([WordPress.Com, n.d.](#))

# Reflect and Answer

- What is difference between?
- Aims
- Objectives
- Outcomes

# Aims, Objectives, Outcomes

- **Aims or goals** in teaching and learning are broad sentences reflecting general intentions and desired outcomes of an institution, program or course (Popenici & Millar, 2015).
- **Learning objectives** refer to teachers' intentions for learners, such as what students will be taught during the course or program (Popenici & Millar, 2015).
- **Learning outcomes** are statements of what a student will be able to do or demonstrate at the completion of a certain sequence of learning (course, program) (Popenici & Millar, 2015).

# Learning Outcomes

- Learning outcomes can be defined as **the particular knowledge, skills, and abilities** that an instructor intends for students to learn or develop ([Yale University, 2021](#)).
- **Learning outcomes are statements** referring to the
  - specific knowledge, practical skills, areas of professional development, attitudes, or higher-order thinking skills that
  - instructors expect students to develop, learn, or master by the end of their learning ([Suskie, 2009](#)).



# Significance of Learning Outcomes

Learning outcomes **allow teachers** to ([Cornell University, 2022](#)).

- Make decisions about selecting course content
- Design assessments that allow students to demonstrate their knowledge and skills
- Design teaching strategies or learning activities that will help students develop their knowledge and skills
- Measure student learning accurately and effectively

Learning outcomes **help students** to ([Cornell University, 2022](#)).

- Decide if the course is a good fit for their academic trajectory
- Identify what they need to do to be successful in the course
- Take ownership of their progress
- Be mindful of what they are learning

# Writing Learning Outcomes

A-B-C-D Guide ([Yale University, 2021](#)).

- **A-B-C-D** stands for **Audience, Behavior, Condition, and Degree**, and describes the major components of an intended learning outcome.
- **Audience** describes the intended learners of a given outcome (typically “Students”).
- **Behavior** is a verb describing understanding, cognitive growth, or a skill that learners will develop (“explain,” “analyze,” “create”).
- **Condition** describes physical and temporal features of the outcome (“within,” “undergirding,” “verbally,” “by the end of term”).
- **Degree** describes the level of attainment (“independently,” “fully”).

# Sample Learning Goals from Courses from Different Disciplines

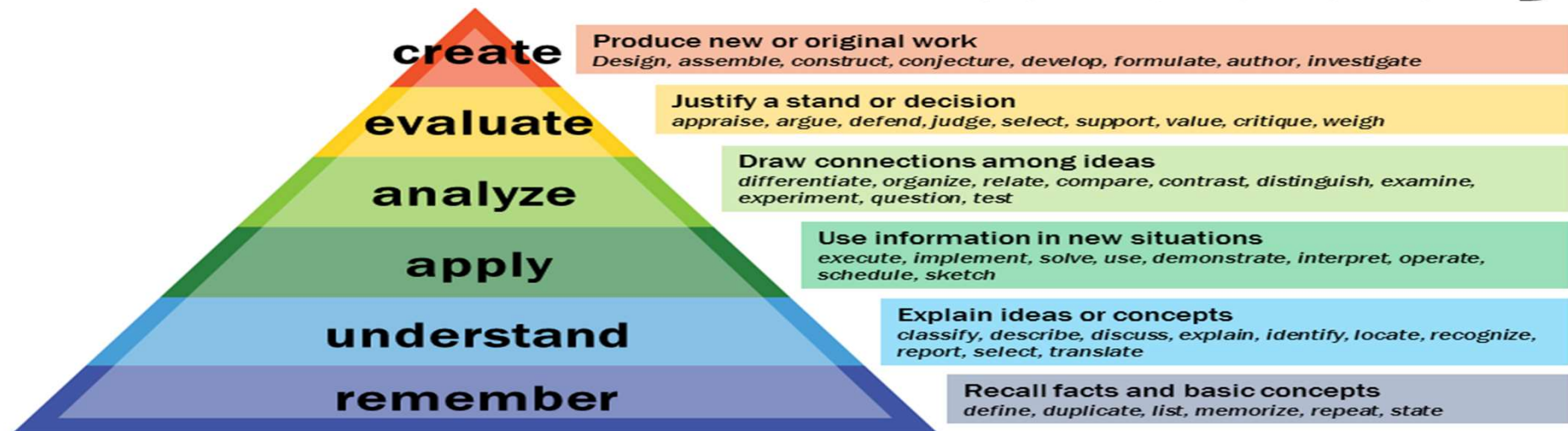
Discipline	Course	Sample Learning Goal	Sample Learning Outcomes
Humanities	American History	Students will develop a broader knowledge of American history	<p>Students will be able to describe the colonization of the Americas by the British, French and Spanish</p> <p>Students will be able to analyze the outcomes of the Civil War</p>
Social Sciences	Cognitive Psychology	Students will understand human language acquisition	<p>Students will be able to identify specific stages of language acquisition</p> <p>Students will be able to describe major theories of language development (e.g. nativist, empiricist, interactionist, behaviorist, cognitive)</p> <p>Students will be able to articulate gaps within theories of human language acquisition</p>
Science, Technology, Engineering or Math (STEM)	Independent Study in Chemistry	Students will develop discipline-specific research skills	<p>Students will be able to design a controlled experiment</p> <p>Students will be able to collect and analyze research data</p> <p>Students will be able to disseminate research findings in written form</p> <p>Students will be able to verbally present research findings</p>

Source: [Yale University \(2021\)](#)

# Bloom's Taxonomy and Learning Outcomes

- In 1956, Benjamin Bloom with collaborators Max Englehart, Edward Furst, Walter Hill, and David Krathwohl published a framework for categorizing educational goals: [Taxonomy of Educational Objectives](#).
- A group of cognitive psychologists, curriculum theorists and instructional researchers, and testing and assessment specialists published in 2001 a revision of Bloom's Taxonomy with the title [A Taxonomy for Teaching, Learning, and Assessment](#).

## Bloom's Taxonomy



 Vanderbilt University Center for Teaching

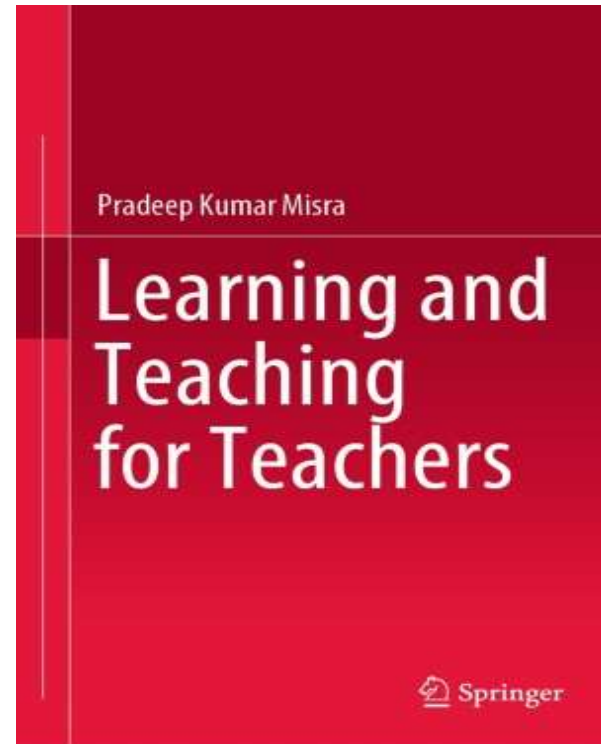
Armstrong, P. (2010). *Bloom's taxonomy*. Vanderbilt University Center for Teaching. Retrieved from <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>.

# Let Us Do It

- Take a topic from the course you choose. Using the ABCD method: audience, behavior, condition, and degree of measurement, **write three student learning outcomes.**
- As a result of (**condition**), (**audience**) will (Bloom's taxonomy verb) (**behavior**), as measured by (**degree of measurement**).

# Learning and Teaching for Teachers

- Learning About Learning
- Approaches to Learning
- Types of Learning
- Strategies for Learning
- Assessment and Learning
- Learning About Teaching
- Process of Teaching
- Planning for Teaching
- Management of Teaching
- Competencies for Teaching
- Technology and Teaching



# Teaching Competencies for 21<sup>st</sup> Century Teachers-Practical Approaches to Learning

1. Teaching and Learning in the 21st Century and Teachers

## **Part I: Facilitating 21st Century Learners**

2. Creating Environments for Joyful Learning

3. Nurturing Minds for Sustainable Learning

4. Using Lessons for Holistic Learning

5. Curating Contents for Multidisciplinary Learning

6. Devising Assessments for Active Learning

## **Part II: Managing 21st Century Classrooms**

7. Managing Classrooms for Participatory Learning

8. Engaging Learners for Reflective Learning

9. Encouraging Learners for Self-Directed Learning

10. Adapting Activities for Experiential Learning

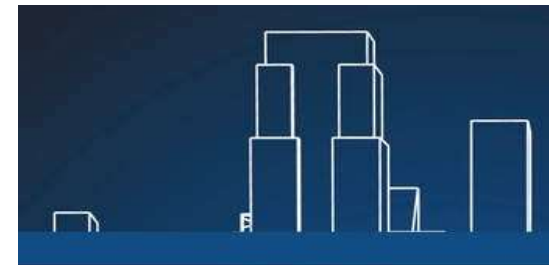
11. Facilitating Experiences for Entrepreneurial Learning

12. Designing Assignments for Collaborative Learning

## **Part III: Integrating 21st Century Technologies**

13. Integrating Digital Technologies for Personalised Learning

14. Designing Instructional Strategies for Blended Learning



## TEACHING COMPETENCIES FOR 21ST CENTURY TEACHERS

PRACTICAL APPROACHES TO LEARNING

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# References

- Armstrong, P. (2010). *Bloom's Taxonomy*. Vanderbilt University Center for Teaching. Retrieved from <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>.
- Cornell University. (2022). *Setting learning outcomes*. New York: Center for Teaching Innovation, Cornell University. Retrieved from <https://teaching.cornell.edu/teaching-resources/designing-your-course/setting-learning-outcomes>
- Cremin, L.. (1976). *Public education*. Basic Books.
- Popenici, S., & Millar, V. (2015). *Writing learning outcomes a practical guide for academics*. Melbourne : Melbourne Centre for the Study of Higher Education, the University of Melbourne. Retrieved from [https://melbourne-cshe.unimelb.edu.au/\\_data/assets/pdf\\_file/0007/2296861/MCSHE-Learning-Outcomes-Guide-web-Nov2015-rev2021.pdf](https://melbourne-cshe.unimelb.edu.au/_data/assets/pdf_file/0007/2296861/MCSHE-Learning-Outcomes-Guide-web-Nov2015-rev2021.pdf)
- Rao, N. J. (2020). Outcome-based education: An outline. *Higher Education for the Future*, 7(1), 5-21.
- Suskie, L. A., (2009). *Assessing student learning: A common sense Guide*. Sanfrancisco, CA: John Wiley and Sons.
- Tshai, K.Y., Ho, J.-H. , Yap, E.H. & Ng, H.K. (2014). Outcome-based Education – The assessment of programme educational objectives for an engineering undergraduate degree. *Engineering Education*, 9(1), 74-85. DOI: [10.11120/ened.2014.00020](https://doi.org/10.11120/ened.2014.00020)
- Yale University. (2021). *Writing intended learning outcomes*. <https://poorvucenter.yale.edu/IntendedLearningOutcomes>
- WordPress.Com. (n.d.). The outcomes based curriculum initiative. <https://obecurriculumsessions.wordpress.com/what-is-obe/>



# Thanks

Feel free for questions and comments😊

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