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Taxonomy of the cognitive domain:
An example of architectural education program

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Abstract

Cognitive domain includes the behaviors regarding mental skills. These behaviors are at the level of knowledge, comprehension, application, analysis, synthesis and evaluation according to American education psychologist Benjamin Samuel Bloom et al. Architectural education aims to acquire a profession within the efforts of designing and building along with creative solutions by harmonizing the requirements with technical opportunities. It is built on the architectural project studies and contains theoretical and practical courses. In this paper; elective course named as 'New Buildings in Historical Environments-Studio' included in the educational program of Department of Architecture of Karabük University will be analyzed according to Bloom Taxonomy.

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1. Cognitive Domain-Bloom Taxonomy

The behaviors in cognitive domain are the mental skills acquired with the knowledge at the end of education. These behaviors were classified in 6 levels as to require a different thinking type for each and to be prerequisites for each other from simple to complex, from concrete to abstract as

- knowledge
- comprehension
- application

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analysis
synthesis
evaluation

by Benjamin Samuel Bloom et al. in 1956 (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956).

**knowledge**
At this step; it is expected to recognize or remember the information the way it is. It is not expected to contribute or to use the information. Therefore, behaviors at knowledge level derive from memorization.

- knowledge of specifics
  - terminology
    memorize, identify, name, define
  - specific facts
    know, recall, select, label, locate, state
- knowledge of ways and means of dealing with specifics
  - conventions
    point out
  - trends and sequences
    list, sequence
  - classifications and categories
    classify, group
  - criteria
    set the framework of
  - methodology
    recite
- knowledge of the universals and abstractions in a field
  - principles and generalizations
    generalize
  - theories and structures
    tell, attribute

**comprehension**
At this step; it is expected to understand the information, to express in different words without losing its content and to re-organize the information.

- translation
  translate, distinguish, comprehend, express, paraphrase, give examples, explain, illustrate, rewrite, extend, summarize, transform, visualize, diagrammatize, match
- interpretation
  determine, interrelate, interpret, explain the meaning, restate, infer
- extrapolation
  guess, arrive at a decision, adapt, fill the gap

**application**
At this step; it is expected to use the information in explaining or reaching solutions the new situations.

choose, transfer, guide, use, sketch, experiment, survey, calculate, solve, operationalise, activate, dramatize, show, paint, draw, model, configure, build, apply, present

**analysis**
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