

## CONSTRUCTIVE ALIGNMENT IN OUTCOMES-BASED CURRICULUM DESIGN

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The concept of Constructive Alignment (CA) in Outcomes-Based Education (OBE is the terminology used at the ministerial level) and Outcomes-Based Teaching & Learning (OBTL is the terminology used at the IHL & program level) requires that each course in the curriculum to be a form of verified evidence to support the achievement of the Program Learning Outcomes (which are usually aligned with the 9 MOHE Learning Outcomes). Hence, each course are to specify THREE Course Learning Outcomes (CLOs), preferably from the 3 Bloom taxonomy (Knowledge, Skills & Affection). Once these outcomes are specified, assessment methods must be determined to verify that the outcomes has been achieved. Following that, appropriate teaching & learning activities are chosen in ways that will involve learners activate the action verbs specified in the outcomes.

For example, if the learning outcome is: (this is MOHE LO1 ie outcome in the Cognitive domain; Knowledge & Understanding. I am using this verb as an example because research have shown that learners' conceptual understanding is very poor even though they can calculate and solve many numerical problems through recognition of or memorization of mathematical formulas)

*"Upon successful completion of this course, you will be able to explain the concepts and physical laws involved in mechanics and thermodynamics";*

then the Face-to-Face (F2F) and non-F2F learning activities will involve students, at the very least:

*to name, identify, describe, discuss, classify, draw, interpret and perhaps show numerical examples on how the concepts & laws apply in some simple observable physical events involving the two learning areas (mechanics & thermodynamics).*

These learning activities must of course be supported by teaching activities that will lead learners towards activating (learners are the one doing the description, discussion, identification, drawing, classifying, interpreting and giving examples) the action verbs. These activities are the Outcomes-Based Teaching & Learning Activities (OBTLA).

In order to know whether the outcomes are achieved, Outcomes-Based Assessment (OBA), which is usually formative in nature, is done throughout the semester. Formative means the teacher identifies how much learners are able to activate the CLO verbs and then the teacher shall provide the necessary remedy to aid learners activate the verbs.

Formative assessment can be done in many ways and of course the normal way to do it is by giving assessment tasks (ATs) such as reading assignments, homework problems and quizzes. These formative tasks serve as indicators on learners' proficiency or achievement level towards the said learning outcome. Learning is driven by assessment. Hence, the feedback received by learners from the assigned tasks will inform both the teacher and the learner the performance with respect to the standard (the verb explain is the said standard since it is the CLO).

Today, regardless of discipline, rubrics are widely used to aid teachers in specifying the quality of the product (learners' responses to questions or tasks related to the action verb in the particular learning area or the integration of learning areas). It also assist the learners in how they ought to respond when they are to activate the action verbs. These very same rubrics will set the standards of achievement when judgment is needed at the end of the semester where course grades are assigned to each learner.

Summative assessment are graded tasks that are used at the end of units or learning areas or semester and these grades are used as part of our culture of certification. The number of summative assessment tasks for this particular learning outcome (the verb is explain) must reflect the student learning time in achieving this outcome. Perhaps 2 tests and a final exam is appropriate (SLT of about 70 for a 3-credit hour course). The remaining SLT is set aside to attain achievement of other learning outcomes such as lab skills and teamwork.

Formative assessments tasks are graded for the purpose of improvement (through the use of feedback via rubrics) during the ongoing semester and its score will not be included as part of the judgment process.

This distinction of formative versus summative assessment is important since many faculty members are using formative assessment to mean "continuous assessment". If an assessment task is used as part of certification, then it is summative. If we assign "continuous assessment" to be 60% then it means the tasks related to this 60% are used for certification and not for improvement (unless one can show evidence that it was first used for improvement purposes).

Hence, specifying 60% as "continuous assessment" is not aligned with the principles of OBA. Perhaps a more acceptable practice would be to list out the tasks to be used as formative assessment (scored and graded for the purpose of improvement via feedback) and the tasks to be used for summative assessment. I recommend we revise the use of "continuous assessment". On the contrary, the final exam is definitely a summative assessment task since its score is used towards course grade determination.

In any case, the OBTL (OBE) practice means that the teaching & learning activities (OBTLAs) and the assessment practices (OBAs) are aligned to the specified learning outcomes. In other words, if the outcome is "to explain", then the OBTLA and the summative assessment tasks must involve learners to show that they can explain.

Since, there are usually 3 CLOs for each course, then according to the principles of OBTL, there will be three sub-grades assigned for the course. Each CLO will be given a separate grade to indicate learners' performance for that particular learning outcome. For example, the learner's score or performance in explaining (cognitive domain) will not be averaged with his score on abilities to design or conduct an experiment or his score to demonstrate his ability on team cohesiveness in achieving a learning goal. This is the principle of Outcomes-Based Grading (OBG) which is closely tied together in the principles of OBTL & Constructive Alignment.

The three grades obtained will then be combined, but not added numerically, taking into consideration the SLTs and the number of assessment tasks assigned to demonstrate achievement for each learning outcome. The combination of these grades will then yield the grade for the course. According to this practice, a learner who failed an outcome will have to repeat that particular outcome even though he passed the course.

Unfortunately, our academic system is not ready for this type of assessment and grading. Hence, if a learner pass the course, they do not have to repeat the course at all even though they fail in the cognitive outcome.

Since we are now implementing OBTL (OBE), it is my prayers that we begin to implement the whole package of constructive alignment. This include the implementation of OBTLA, OBA and OBG. It also means that we MUST do away with or minimize the traditional chalk-and-talk or direct instruction TLAs and the traditional assessment and grading practices. We cannot claim to be practicing OBE-SCL but in reality we are only creating outcomes but we are not making learners activate verbs in these outcomes during the TLAs. Worst still, we are presently not activating these verbs in our formative and summative assessment tasks. Finally, we fail to assign grades according to the specified outcomes and instead just adding the scores for all the assessment tasks as if the tasks are demonstrating performance of the same action verbs.

The time for transforming our higher education practice to support the MOHE transformation is now. Change and transformation requires that each of the teachers reflect and ask the critical question,

**“WHY AM I AT UiTM AND HOW CAN I SUPPORT THE COUNTRY’S  
VISION & TRANSFORMATION AGENDA IN PRODUCING HUMAN  
CAPITALS WITH FIRST CLASS MENTALITIES?”**