

# **A Study of the Application of Outcome-based Teaching and Learning in Higher Education in Hong Kong**

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# Abstract

In line with the change from focusing on output to measuring outcome in the public sector reform in Hong Kong, Outcome-Based Teaching and Learning (OBTL) has been one of the key government policy initiatives advocated by the University Grants Committee (UGC) since 2006. Most studies on OBTL applications in higher education in Hong Kong were on its effectiveness when applied on particular programmes, especially in measuring the level of students' achievements of the Course Intended Learning Outcomes. There were very few studies on how this policy initiative has been received and adopted by different higher educational institutions. This paper aims to provide a comprehensive review of how the eight UGC-funded (HKU, CUHK, HKUST, CityU, PolyU, HKBU, LN, HKIEd) and seven self-financing (OUHK, SYU, CHC, HSMC, TWC, Caritas, Centennial College) higher education institutions responded to the UGC's request and their adaptation of OBTL. It will examine how OBTL is used in these institutions and identify the reasons why some institutions have high application while others have low application. For those with high application, the paper will analyse the critical success factors in the application of OBTL, including senior management endorsement, development of strategies and measures to enable the practice of OBTL, and allocation of resources for teachers' support. It is hoped that this paper will give government policy makers a better understanding on OBTL implementation and facilitate future policy enhancements on teaching and learning for higher education institutions.

# What is Outcome-based Teaching and Learning?

- Origins drawn from behaviourism, mastery learning, competency based approaches, curriculum assessment.
- “Say what you want students to be able to do, teach them to do it and then see if they can, in fact, do it.”

(Biggs & Tang 2007)

# What is Outcome-based Teaching and Learning?

## ➤ Five components:

- (1) the development of clearly defined and published *learning outcomes* to be achieved by the end of a course;
- (2) the design of the *curriculum, learning strategies* and *learning activities* to ensure the achievement of the learning outcomes;
- (3) an *assessment process* matched to the learning outcomes;
- (4) the *assessment of individual students* to ensure that they achieve the outcomes; and
- (5) the provision of *remediation and enrichment* for students as appropriate.

(Spady 1988)

# What is Outcome-based Teaching and Learning?

## ➤ Two models:

### (1) **Constructive Alignment model** (Biggs & Tang, 2007)

- Aligning components in the teaching system: teaching methods, learning activities, assessment tasks, which should lead to the attainment of the desired intended learning outcomes (ILO).
- On top of Course ILO, there should be Programme ILO, College ILO. All should be aligned.
- Learning outcomes tend to be defined narrowly.

# What is Outcome-based Teaching and Learning?

## ➤ Two models:

### (2) Integrated Outcomes for broader learning

- A more holistic & complex cluster, similar to “competences” covering a wide array of knowledge, abilities, skills, values & attitudes.
- Taxonomy of Learning Outcomes Statements has depicted three levels of outcomes: Knowledge (content), Skills (general competences & professional/occupational) & Attitude/Value (Ewell’s Second Report to UGC 2006).
- Take a long time to achieve, some complex outcomes are non-measurable.

# Why Outcome-based Teaching and Learning?

- UGC advocated Outcome-based teaching and learning since 2006
- Funding allocated to studies on OBTL
- Public sector reform in Hong Kong
  - Change from measuring “Input” to measuring “Output” and “Outcome”
  - Accountability, Value for money
  - Quality Assurance



# Why Outcome-based Teaching and Learning?

- A pragmatic international transfer of the western educational theory to Hong Kong, OBTL a world trend.
- UGC's role can best be described as a “facilitator” to enable the institutions to build up their own OBTL capacities. it is framed as a “soft mandate”. (Kennedy 2011).
- But for Self-financing Higher Education institutions - have to strictly follow the policy of OBTL for programme validation & accreditation by the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ), in order to offer their programmes.

# Studies on OBTL

- Majority use quantitative methods by asking factual & instrumental questions to measure its degree of success or merits.
- Wang (2013) - evaluation of OBL in an undergrad English programme in HKIED.
- Lui & Shum (2012) - using assessment rubrics to study student learning in managerial accounting in LingnanU.
- Wong & Cheung (2012) - teaching effectiveness & students outcomes based on teaching evaluation results & their articulation success on computer sciences in LingnanU.

# Studies on OBTL

## ➤ Others:

- Pang, To & Man (2009) - using Study Process Questionnaire (SPQ) to study the learning approach of undergrad business students in CityU.
- Lau (2012) - perceptions of students from Department of Information Systems in CityU through conducting self-assessment and peer-assessment.
- Yam (1997) - “Reality Model of Quality Teaching Star” in higher education, should focus on total involvement of teachers & students to meet needs of students, corporate, the public and society.

## OBTL Application by UGC –funded universities

➤ For 8 UGC-funded universities, very **different** approaches:

- Some immediately took directive steps from top level to spearhead the planning & monitoring of OBTL adoption in each of their Faculties.
- Some asked Faculties to develop their own OBTL “roadmaps” to specify the strategies & timeline for implementation.
- Others incorporated OBTL as an integral part of Curriculum Reform to ensure that educational aims are achieved in students’ learning experiences rather than as a separate initiative.

# Application by UGC –funded universities

## Examples of **high application** of OBTL

- PolyU - an early advocator, stated in Academic Development Plan to apply OBTL in all undergrad programmes since 2005.
- HKIED – key purpose of OBL is to assist students in attaining learning outcomes that would enable them to be competent professionals in teacher education.
- CityU - proactive plan to implement OBTL in all its academic programmes based on the concept of Constructive Alignment.

# Application by UGC –funded universities

## Examples of high application of OBTL

- LingnanU - engaging in the process of curriculum review & development to support the new four-year curriculum, with focus on reviewing assessment metrics & creation of criterion-referenced rubrics.
- BaptistU - active advocator, with full documentations & templates on criterion referenced assessment, use of rubrics, syllabus checklist, graduate attributes, recommended ILO mapping matrices.
- HKUST – started OBE Project in 2007.

# Application by UGC –funded universities

## Examples of **high application** of OBTL

- **Six** universities have heavily emphasized OBTL, endorsed by top management.
- Implementation supported by comprehensive guidelines and toolkits.
- All academic staff and administrative & supporting staff have highly engaged in adopting the implementation of OBTL for all programmes.

# Application by UGC –funded universities

## The other two UGC-funded universities:

### ➤ CUHK

Faculties & School to develop their own OBA 'roadmaps' to specify the strategies and timeline for implementation.

### ➤ HKU

OBTL is not being treated as a separate initiative, but claimed that OBASL has actually been embedded in its existing practices.

Adopted a student-centered learning, not outcome-based.



# OBTL Application by (SFHEI) Self-financing Higher Education Institutions

## Two other high application universities:

### ➤ Shun Yan University

High application of OBTL, implemented in 2009, a comprehensive handbook on OBTL.

### ➤ Open University

Implemented in 2008, obtained funding from UGC on projects.

# OBTL Application by SFHEI

## Self-financing Higher Education Institutions

➤ Tung Wah College – provide a holistic & outcome-based education through both formal curriculum & co-curricular activities.

➤ Caritas Institute of Higher Education

➤ Centennial College

➤ Chu Hai College of Higher Education

➤ Hang Seng Management College

**These four have not explicitly mentioned OBTL, however, they have to follow the procedures for programme validation and accreditation.**

## Case Study Example :

### Chu Hai College of Higher Education (Established 1947)

#### **Mission**

- To serve as an economic, cultural and technological bridge between the East and the West.
- To treat teaching and research as equally vital in our education.
- To provide students with multi-disciplinary learning experiences, which will broaden their knowledge base and vision, and enhance their problem-solving power and adaptability.
- To provide quality education for students' all-round development, independent and critical thinking, and to enhance their ability to learn, to live and to work in a diverse social and cross-cultural, challenging environment.

# Chu Hai College

## Vision

- To be one of the outstanding and influential world-class universities in our targeted fields of pursuit.
- To be the economic, cultural and technological bridge between the East and the West in our region, and make our most contributions to the development of our society and our nation.
- Our graduates will possess knowledge and virtues, broad-mindedness, confidence, commitment, global vision, creativity and adaptability.
- Our graduates will have the aspiration for self-improvement, positive attitude towards life and a commitment to their families, their society and their nation.

# Chu Hai College

## Issues identified from a survey on OBTL (2013)

- Great variations & formats in course outlines. Some have little relation to OBTL, while some list the CLO but without mapping with PILO & the assessment tasks.
- Write-up of learning outcomes are not clear but just aims and not outcomes.
- Difficult for students to grasp the learning outcomes.
- Lack of generic skills learning outcomes in most course outlines.
- A few staff indicated that they were not sure about OBTL.
- Some teachers expressed that they did not understand the quality assurance mechanism.

# Chu Hai College

## Suggested Guidelines for Student Assessment:

- Set criteria & standards for assessing students by project work.
- Develop criteria and standards for assessing essays & reports.
- Use real-life cases for setting assessment questions.
- Make assessment criteria and standards transparent to students.
- Develop assessment rubrics to ensure fair assessment of students' work.
- Use the standard-setting method to design good assessment tasks.

# Critical Success Factors for OBTL Implementation

- Senior management endorsement
- Formulate policies, strategies and programmes for implementation
- Develop comprehensive Quality Assurance mechanism
- Allocate resources to produce multi-media OBTL resources kids for teachers, e.g. production of VCD with manuals, teachers' guide, web-link, self-learning packages
- Teachers training
- Administrative support
- Buy-in from students

# Conclusion

- **OBTL is received differently by different institutions.**
- **UGC-funded universities can make their own choice of the level of commitment.**
- **SFHEI have to follow closely.**
- **How it is actually carried out will depend on various factors.**
- **Critical success factors – commitment from top level, with comprehensive support and resources allocated.**