

## Teacher Education| Full Research Article

# Towards Outcome-Based Education: Challenges in the Context of Afghanistan

Mohammad Naeim Maleki , Herat University

### Abstract

As a response to content and teacher-based approaches of traditional education, outcome-based education (OBE) has emerged. Recently, the Ministry of Higher Education (MoHE) in Afghanistan has trained some university teachers on these approaches. This is going to be an ongoing process in which all the university teachers will be trained. The purpose of this study was to explore the challenges trained teachers faced in the implementation of OBE in their courses and their suggestive solutions to overcome the barriers. The participants (n=16) were selected from among the teachers who had participated in the OBE training workshop at Herat University. A desk review of the documents and semi-structured interviews were conducted to collect data for this qualitative study. The paper uses the components of constructive alignment as a framework to analyse the data. The study found that there are external challenges (i.e., top-down curricula and policies) and internal challenges (i.e., number of students and the amount of instructional time) ahead of teachers when they tried to implement OBE systems in Afghanistan. Furthermore, the study provides suggestions for both policymakers and teachers to ease the implementation of OBE-SCL in university classes.

**Keywords:** Outcome-Based Education, OBE Challenges, OBE in Afghanistan, Constructive Alignment

## Introduction

Going through decades of wars, Afghanistan's infrastructure has been devastated. It needs to boost up its education system both at the school and university level, which could be a promising way to reach peace and prosperity. In order to enhance the higher education programmes, the implementation of effective approaches is a mandate. It should be a system that provides the opportunity for graduates to find a job and build their post-conflict country through their skills and knowledge.

The literature shows that the majority of university graduates in most countries are not job-ready (see World Economic Forum, 2018). Only in the UK, Baska (2019), citing from Pearson Business School, reports "nearly a fifth of graduates are not 'workplace ready'" (p.1).

It seems that higher education institutions have failed in many countries to prepare their graduates to get relevant and decent jobs after graduation. Afghanistan is not an exception; for example, the latest needs analysis conducted by the English Department at Herat University (HU) shows that the majority of graduates from this department are involved in jobs not related to their field of study (English Department Report, 2018). The question is, how can the students be job-ready upon their graduation from the university?

Currently, the curricula and syllabi are mostly content-based and prepared in a top-down style in Afghanistan. The MoHE's policies also reflect this; it is dictated that a specific number of pages of a chapter should be taught in each session (MoHE-teaching Material Policy, 2018). Therefore, in order to prepare students for the market, the curricula and the policies need to be revised accordingly. Then, the teachers and staff should be trained on new methodologies and approaches. As a way to move towards this objective, the MoHE sends the teachers from different universities around Afghanistan to Malaysia to be trained on Outcome Based Education (OBE) and Student-Centred Learning (SCL) on a regular basis.

Four of these trainers (including the researcher of this paper) are from HU. Every year, the trainers hold training workshops for teachers, department heads, and faculty deans on OBE-SCL and encourage them to implement these approaches in their classes. However, based on the researcher's experience as the former Head of Professional Development Centre at HU, not many of the trained teachers observed the OBE-SCL in their teaching practices due to some challenges.

Although challenges facing teachers and institutions regarding the implementation of OBE have been investigated in other countries (i.e., Hassan, 2012 (in Bangladesh) and Rajae et al., 2013 (in Iran), little has been done on exploring OBE in the Afghanistan context (i.e., Alimyar, 2020). Thus, the main purpose of this research study is to explore the challenges and the suggestive solutions regarding the implementation of outcome-based education in the context of Afghanistan.

What is OBE?

Outcome-Based Education has been around for decades (see Spady, 1986). As a response to traditional systems where output is merely governed by process and input, OBE – with a focus on results – has emerged (Spandy, 1994). The focus of this education system is on the *outcome*, which is merely defined for students. Spady (1986) defines OBE as a system “focusing and organizing all of the school's programs and instructional efforts around the clearly defined outcomes we want all students to demonstrate when they leave school” (p. 53). In other words, through this system, programmes are designed to enable students with skills and knowledge or what “students will be able to do” as a result of their learning experience (Spady, 1993, p.1).

In addition, the Northern Province Department of Education in the United States (cited in Ramoroka, 2007) goes further with the definition of OBE; they believe the systems designed based on OBE concentrate on “what the learner wants *to achieve* and what they should be able *to know, to understand, to do and to become*” (p.15, emphasis is added). The verbs ‘to achieve, to know, to understand, to do and to become’ are from different levels of Bloom Taxonomy and are carefully chosen and are foreseen for students even after their graduation.

Spady and Tang (2015) present two kinds of outcome-based education. The first one refers to “board institutional outcomes,” which includes “averaged student performances, that are used for such purposes as quality assurance, benchmarking, accreditation requirements, and the requests of external stakeholders like employers and policymakers” (Spady & Tang, 2015, p. 31). The second kind is more at the micro-level – “outcome-based teaching and learning,” which is expected for students to achieve mostly at the course level. The authors state that the question that teachers should keep in mind at this level is: “What do I want my students to be able to do as a result of their having learned specified topics?” (p. 31). Keeping this question in mind, the teacher can prepare the relevant activities that help students build upon their knowledge and skills. The authors also suggest that teachers, with the help of any other relevant external input, could determine the intended outcomes for the course.

### **Why OBE?**

Every educational sector around the world tries to find systems and approaches which can give them better outputs. Since the main goal of the OBE is outcome-based and product-driven education, it has been used in countries such as the USA, Malaysia, Japan and some African and European countries for many years (Rajaei et al., 2013). Some scholars investigated the outcome of implementing OBE in higher education systems (e.g., Jager, 2002) and the relationship between OBE and continuous quality control (e.g., Zeynal et al., 2017). Others investigated the understanding of educators about OBE and its impact on assessment (e.g., Ramoroka, 2007).

The main difference between traditional education and outcome-based education is the focus of the programmes. The traditional education system focuses on the contents, while the OBE system’s focal point is on the outcome (Sekhar et al., 2008). In other words, in traditional education, the most important thing is that students should finish the content of a fixed textbook or lecture-note that is assigned and chosen by the teacher or the department for a specific course. On the other hand, OBE pays great attention to what the students will be able to do – such as the skills they need to learn in order to use in the market and in real life after they graduate.

### **Critiques on OBE**

Like all other systems and approaches, OBE has been critiqued by some practitioners and teachers too. For example, Robenson (2006), in one of his TED Talks, questioned the status quo of education programmes designed on market-driven outcomes. He argues that this kind of education reduces creativity among students, and it undermines subjects such as arts and dancing. Furthermore, Lee (2003) questions the “prescriptive nature of OBE,” which he believes leads to restriction of “teachers’ and students’ autonomy” (p. 92). In other words, since in the OBE approach, all the teaching, learning and assessment are based on the intended outcomes, it limits the agency of learners and teachers.

Furthermore, in a longitudinal study, Sun and Lee (2020) investigated the challenges towards the implementation of OBE in a business school in Malaysia. They found that having multiple graders in a large class affected the assessment in an OBE process. They also added that the academic focus on research and publication resulted in having less focus on teaching and learning in the class.

Being aware of the challenges and critiques, many countries; for example, in Australia and South Africa in the 1990s, in the USA in 1994, in Hong Kong in 2005, in Malaysia in 2006, in India in 2007 (Rao, 2013).

Research Questions

The following research questions guided this study:

1. What are the challenges teachers face in implementing OBE in their classrooms at HU?
2. How do the teachers overcome these challenges?

## Literature Review

### Theoretical Framework

Constructive alignment (CA) is “a form of outcomes-based teaching and learning in which both teaching and assessment are aligned to the ILOs [intended learning outcomes], which specify what the student is expected to do with the content taught” (Biggs & Tang, 2015, p. 32). In other words, to implement OBE in the teaching and learning process, teachers should develop the outcomes while considering the assessment procedures and methods, and also find out the instruction (teaching and learning methods), which can help students experience learning around the verb(s) in the outcome.

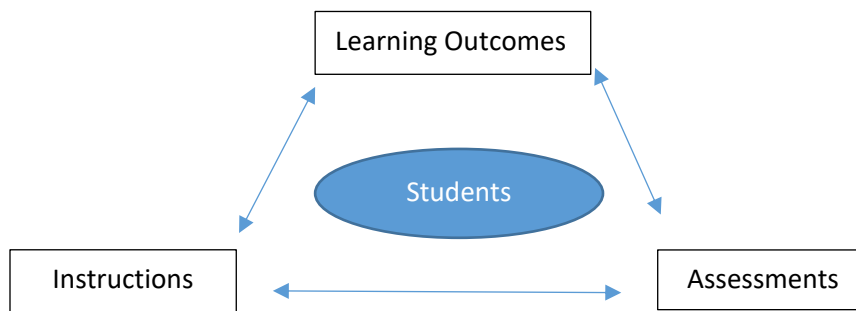


Figure 1. Course design framework based on constructive alignment (adapted from Felder & Brent, 2003)

The three angles in Figure 1 are interrelated and they support each other. Felder and Brent (2003) argue that teachers should develop the outcomes at the course level and make sure the outcomes support the POs. While preparing the outcomes, teachers should consider the teaching instructions and methodologies to have the students ‘experience’ learning by doing. Finally, the teachers should assess the students learning against the course outcomes; only then can we say the three angles of the CA are aligned.

### Learning Outcomes

In OBE, great attention is paid to outcomes or objectives at different levels. There are Program Educational Outcomes/Objectives (PEOs) and Program Outcomes (POs) (Hassan, 2012). PEOs are at the university and faculty level, and POs are at the department level. There are also outcomes at the course level – Course Learning Outcomes (CLOs). The most important point is that all these outcomes should support each other.

The outcomes should be SMART (Mohammad et al., 2016):

*Specific* – to one learning behaviour

*Measurable* – includes the criteria for success

*Actionable* – can be demonstrated with evidence, or observed

*Relevant* – to future experience or workplace

*Timed* – to be achieved within certain time constraints (p. 17)

In order to form a SMART outcome, it is advised to use the verbs from Bloom's Taxonomy. Rajae et al. (2013) suggest considering the three domains of Bloom's: Cognitive, Psychomotor, Affective. It will make the teaching and assessment focused and easy to manage for both teachers and students.

Additionally, to successfully adapt OBE, "the academic and the students must understand the objective of learning and the roles for both instructors and learners" (Rajae et al., 2013, p. 9). So, here both learning objectives and the roles that learners and teachers play in OBE are significant for a successful program.

#### Instruction

In order to implement the OBE system, there is a need for a method. Student-centred learning (SCL) is a promising method that could involve the learners in the active learning process. Through SCL, Wright (2011) believes that teachers empower the students and have them do the decision-making in the class. Students need to be empowered in a class with certain skills, such as "study skills, time management, the ability to express oneself orally and in writing, and computational skills" (Wright, 2011, p. 93). The teacher, on the other hand, facilitates the process.

Table 1.

*Comparison of Traditional and New Paradigms of Teaching* (adapted from Johnson et al., 2006)

| Factor                 | Traditional Paradigm of Teaching  | New Paradigm of Teaching  |
|------------------------|---|---|
| <b>Knowledge</b>       | Transferred from teachers to students                                     | Jointly constructed by students and teachers                          |
| <b>Students</b>        | Passive vessel to be filled by teachers' knowledge                        | Active constructor, discoverer, transformer of own knowledge          |
| <b>Teacher purpose</b> | Classify and sort students  | Develop students' competencies and talents                            |
| <b>Relationships</b>   | Impersonal relationships among students and between teachers and students | Personal transaction among students and between teachers and students |

|                   |                             |  |
|-------------------|-----------------------------|--|
| <b>Context</b>    | Competitive/individualistic | Cooperative learning in classrooms and cooperative teams among faculty |
| <b>Assumption</b> | Any expert can teach        | Teaching is complex and requires considerable training                 |

Table 1 shows the differences between traditional and new teaching methodologies implemented by teachers. The main difference is that in the new paradigm of teaching, the focus is more on students where they are seen as active learners who are involved in the learning process through cooperative and teamwork activities. It is also implied that “knowledge is not transmitted by a teacher but is constructed by students through their own learning activities” (Biggs & Tang, 2015, p.32). The construction of knowledge by students is what OBE expects. Teachers in a traditional teaching context might face challenges when implementing SCL methods. Therefore, investigating the challenges in a university context where traditional methods are predominantly used is essential.

**Assessment in OBE**

Assessment constitutes another angle of constructive alignment, which is also the backbone of OBE approaches. There are two main functions of assessment through which the learners are evaluated: formative and summative assessment. The former is used to evaluate “students in the process of “forming” their competencies and skills with to help them to continue that growth process” (Brown, 2004, p. 6). The teacher’s feedback and comments and peers’ feedback are meant to form the students learning in this kind of assessment.

Summative assessment is mostly used in traditional teaching methods and approaches, which Brown sees as a problem. He argues that this kind of assessment “does not necessarily point the way to future progress”; it “aims to measure, or summarize, what a student has grasped, and typically occurs at the end of a course (Brown, 2004, p. 6).

Teachers in OBE approaches are advised to use the formative assessment more often compared to summative. It is because, in formative assessments, teachers try to form the learners’ knowledge and skills so that they reach the intended outcomes.

Rajae et al. (2013) found that assessing the soft skills was a challenge for the teachers who employed OBE in Iran. The authors stress that OBE sees assessment as a process in which the learners’ abilities are measured against the outcomes instead of the contents of the course.

The participants in this study had been trained on how to develop outcomes at different levels, how to teach and how to assess the learners based on the intended outcomes; in fact, these areas constitute the three angles of the CA. The mentioned elements of constructive alignment (developing outcome, teaching and learning instruction, assessment) are the pillars of OBE. Therefore, these three elements were used as lenses for this study to investigate the challenges and suggestive solutions teachers have faced in implementing OBE approaches.

**Research Method**

A qualitative research design was used in this study. The study took place at HU in Herat City. Herat University has more than 420 teachers who teach in 16 different faculties. About 80

of the teachers (both female and male teachers) from different faculties were trained on OBE-SCL by the master trainers from the MoHE.

### Participants

The data for this study were collected from Herat University teachers in Herat City, Afghanistan. One teacher from each faculty (n=16) was selected on convenience as participants – 5 of them were male and 11 females. In addition to being teachers, five of the informants were faculty deans, and four were department heads. They were purposefully added to this study to find out about OBE at both programme and course levels. One of the reasons for choosing purposive sampling is that these participants were information-rich cases, making this technique effective when having limited sources (Patton, 2002). In addition to their knowledge and experience as criteria, their willingness and availability were also considered in the sampling process. Their ages ranged between 34 and 59 years old. Their teaching experience ranged between 6 and 30 years (Table 2 has more details). All the participants had received a 12-day (36 hours) OBE training workshop prior to this study. Most of them had the training 2 to 3 years ago.

Table 2.

#### *Demographic Information of the Informants*

| No | Faculty          | Gender | Years of Teaching |
|----|------------------|--------|-------------------|
| 1  | Computer Science | F      | 10                |
| 2  | Education        | F      | 14                |
| 3  | Stomatology      | F      | 10                |
| 4  | Economics        | F      | 30                |
| 5  | Arts             | F      | 8                 |
| 6  | Agriculture      | M      | 28                |
| 7  | Medicine         | M      | 29                |
| 8  | Journalism       | M      | 12                |
| 9  | Theology         | M      | 7                 |
| 10 | veterinary       | M      | 8                 |
| 11 | Literature       | M      | 13                |
| 12 | Administration   | M      | 12                |
| 13 | Science          | M      | 6                 |
| 14 | Engineering      | M      | 7                 |
| 15 | Sociology        | M      | 9                 |
| 16 | Law              | M      | 15                |

### Data Collection and Data Analysis

Two means of data collection instruments were used in this study. First, a semi-structured interview was used to investigate the challenges the participants faced and the solutions they suggest or used in implementing OBE in their classes. All the interviews were conducted in the local language; each interview lasted for about 35 minutes. The consent of the informants was gained prior to the interviews. The participants were clearly informed of the

research process and its purposes. They were also informed that their participation is voluntary and that they can withdraw from the research anytime.

The data were translated into the English language in the data analysis process. The second instrument was document review. It included the curriculums, teachers' syllabi, policy and bylaw documents. The collected data were coded thematically; they were organised and analysed considering the research questions.

## Results

A thematic analysis was employed when analysing the qualitative data. It is "a method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79). The three dimensions of constructive alignment (outcome, instruction and assessment) were used as lenses when analysing the data. The emerged themes on the challenges that university teachers faced whilst implementing OBE were grouped into two main categories: external and internal challenges. The CA elements were considered in both categories of challenges. Furthermore, this section discusses the findings on the proposed solutions and the advantages of implementing OBE in university classes.

### External Challenges

The external barriers encapsulate the external challenges on which the universities do not have direct control. The first challenge refers to policies and bylaws about curricula and assessment. Recently, the MoHE had a curriculum reform programme where all the representatives of specific departments were gathered in different clusters in Kabul to develop relevant curriculum for their departments to be taught in all public universities around the country. The participants found the curriculum reform programme contradicting the values of OBE. One of the teachers said:

OBE talks about outcomes that should be according to the market, but the MoHE emphasized a single unified curriculum. I was really shocked and tried to convince them that there are some courses that are not necessary to be taught in Herat context, but they had their own criteria. (T4)

Furthermore, T13 believed that the 'top-down' process of developing curricula that dictates a 'one size fits all' curriculum limits the universities' agency in developing their curricula based on the local needs. Although the policy on curriculum development indicates that the universities have the option to change the introduced curricula by as much as 30%, the teachers stressed that this is not enough. This challenge undermines the first pillar of CA – developing learning outcomes, which should be based on the market needs of the learners. The assumption for having a single curriculum on a specific subject for all universities could be because the students come from all around Afghanistan to study in the public universities in big cities. It was beyond the scope of this study to focus on this assumption. The other policy challenge is the one that dictates the assessment and scoring procedure which will be discussed in the next section.

The unpredicted number of students being introduced to different departments of the higher institutions by the MoHE after the Kankor exam is another external challenge that hinders the implementation of OBE-SCL. The MoHE asks the departments to request the number of students they would like to have for the coming academic year. Then, the MoHE



officially introduces the students to the departments. However, usually, there is a huge difference between the number of students the departments request and the number they receive from the MoHE. The unexpected number of students causes internal problems for the departments concerning teaching and assessment. It will be discussed in more detail below.

### **Internal Challenges**

The internal challenges could be managed and are directly related to the university with minimal influence from outside. The most common problem reported by the participants is the number of students in each class. In order to successfully implement cooperative learning activities, such as Jigsaw, the number of students should not exceed 35 in a class. That is because the students should have a better chance to interact and teachers should make sure peer learning happens. It could also give more time for the teachers to facilitate and assess all the students continuously. However, according to teachers, there are some classes with 280 students.

T1 from Computer Science Faculty said that "...with this number of students [over 70], it is almost impossible to provide feedback for individual students on their projects". This challenge is more visible in the courses which require practical activities and experiments in laboratories and field. One of the participants from the Medicine Faculty said that "there are 280 students in a class, and they need to have practical work as a form of their learning. In fact, 60% of our teaching is practical but there is no way I can manage to have that done"(T7). The only interactive activity the participants could manage to use in their large classes was the Think-Pair-Share. Students in this activity are given a short time – 2 minutes – to think about a question/issue/problem raised by the teacher. Then, they share their ideas/responses with a partner next to them; finally, some students share their thoughts with the class.

### **Instructional Time**

Instructional time is "the proportion of allocated time that is actually spent on instructional activities" (Gettinger & Seibert, 2002, p.2). The amount of instructional time is another challenge teachers faced in implementing OBE. One of the participants from the Theology Faculty said, "when there are too many students in the class, it would be hard to manage the CL [cooperative learning] activities and if you do, there won't be enough time to reach the intended goals or outcomes." According to policies, each session should last 50 minutes (Curriculum Bylaw, 2018). Teachers believed considering SCL with current facilities, 50 minutes is not enough. T3 said:

In this 50-minute session, first, I need to do the seating arrangement for 120 students, then I spend time connecting my computer to the projector, then I spend some times taking the attendance; there would be only about 30 minutes left for my actual teaching.

There is a 15-minute recess time between each session for students to refresh and for teachers to move to the next class. In some cases, teachers have to move from one building to another or from one floor/room to the next, which might cause them to lose some of their instructional time. Despite having outnumbered classes and a limited time frame for each session, some teachers managed to provide more learning opportunities for the students as a kind of strategy to overcome these challenges. For example, T14 from the Education

Faculty stated that she uses blended learning where students have a chance to meet face-to-face and online.

### **Students' Resistance to Change**

Students' resistance to accepting change is another challenge reported by the teacher participants. T9 explained it in an example as follows:

One day, when I asked the students to prepare for the lesson and present in posters, as a form of Jigsaw activity, one of the students said, why is a teacher for? Although I explained to him and tried to convince him of the activity and support I will provide for them, he did not do the activity.

It could be because the students are not used to this method of teaching. Lecture-based instruction is what students experienced at schools. Therefore, they do not show interest in group works. T6 stated that "students do not show interest for group work mainly because they are used to lecture-based education where knowledge is delivered by the teacher and the students are only listening and taking notes." T15 said that he had to clearly state the role of each team member on a paper and had to facilitate very closely in the beginning so that they trust in themselves and know their potential. T15 insisted that this awareness-raising strategy works for some students.

The above examples also show that the students did not want to take responsibility for their learning and did not trust themselves or their peers. T11 expressed the same and added the authorities' responsibilities towards the implementation of OBE too. He said:

I was very enthusiastic and motivated in the beginning after I had the OBE training. But then I saw no one cares how hard I work before and after the class to prepare and teach in a way to put students more in learning experience. So, I returned to the lecture style like other teachers.

Lack of follow-up from the departments, faculty, or university authorities on the implementation of OBE-SCL pushes the teachers to move back to the traditional lecture styles of teaching. The above example also indicates a lack of motivation from either departments or faculties.

With regards to teaching methods and considering the above challenges, teachers tried to overcome these challenges by maintaining the active lecture method more often. The above external and internal challenges stopped them from having more cooperative activities. Although they all declared the impotence of formative assessment, the availability of policies (20% mid-term and 60% final exams) and the large populated classes pushed the teachers to use summative assessments. However, regarding the constructive alignment, there was some written evidence of alignment between outcomes and teaching methods in the participants' syllabi.

Overall, the participants showed a positive attitude towards the OBE-SCL training, which is in line with Alimyar's (2020) findings. For example, T16 expressed his feelings as follows: "I am very grateful that I could participate in this workshop; this has changed my perceptions a lot about teaching and learning." The participants also found OBE and SCL very essential for all teachers, even at the school level. They added that with these approaches, there will be more interactions between students (peer learning). However, the teachers returned to traditional lecture methods when they could not overcome the challenges. The

only section of OBE that they all stuck to is the clearly stated course syllabus which included the POs and CLOs and some elements of teaching methods.

## Conclusion

Although some university teachers try to implement OBE in their courses, Afghanistan is still at the awareness-raising stage in which MoHE, with the help of Higher Education Development Programme (HEDP), provides some training workshops for the university teachers. Bringing change is time-consuming and should be done gradually. This is especially true in a context where traditional systems and approaches have been predominantly used in both education and higher education contexts. Although the findings revealed that the university teachers primarily faced many challenges – both external and internal – in implementing OBE in their classes, these challenges could be mitigated and resolved if there is more top-down support from MoHE and the universities towards the implementation phase. Another positive aspect is that the higher-level authorities accepted the functionality and productivity of the OBE-SCL approaches; however, this study suggests that these approaches should also be considered at the education level (primary, secondary, and high school). The MoHE could be more successful if they pay more attention to the number of training and trainers, provide more facilities, and give the autonomy to the local institutions to develop their own curriculum.

Furthermore, this study suggests that all the university teachers should be trained on OBE-SCL, both the MoHE and the universities should work on revising some policies that contradict with OBE-SCL values, and they should provide more facilities (including human and non-human resources) so that the learning environment is prepared for the students to learn and for the teachers to teach and facilitate using OBE-SCL approaches.

The findings have implications for both policy and practice. It provides policymakers and programme designers with insight into the awareness and implementation of the OBE system in higher education programmes. Identifying the challenges and suggestive solutions university teachers face in a context new to OBE, policymakers could work on the policies which have contradiction when it comes to practicing OBE in higher education institutions. Furthermore, the trainers could also use these findings to develop more effective training sessions for the teachers. As for practice, the findings present information for university authorities and teachers about barriers and solutions for using OBE in their departments and classes.

The findings from this study also suggest future research projects investigating the implementation through observing the classes. It would also be interesting to investigate the effectiveness of OBE implementation in the classes from the learners' point of view.

The limited number of participants and relying on only interviews could be counted as limitations for this study. Adding classroom observations to interviews might yield more significant results.

## Funding

The author received no direct funding for this research.

## About the Author

**Mohammad Naeim Maleki** has his MA in TESOL from the States as a Fulbrighter. He has granted a scholarship from the University of East Anglia in the UK and is currently working on his PhD research focusing on Adult Education and Literacy using ethnographic approaches. He has been teaching in America, Japan and Afghanistan for more than 15 years. He has worked with many national and international NGOs focusing on education. He is a teacher trainer certified by the World Bank (HEDP) office and the MoHE in Afghanistan. He has published research papers internationally on academic writing, learners' agency, literacy, identity and decision-making.

## References

- Alimyar, Z. (2020). Outcome-based education training workshops: A study to explore their effectiveness on Afghan EFL instructors' teaching methods. *International Journal of Education and Culture*, 9 (1-2), 18-30.
- Baska, M. (2019). Graduates not workplace ready. *People Management*. Retrieved from: <https://www.peoplemanagement.co.uk/news/articles/graduates-not-workplace-ready#:~:text=Nearly%20a%20fifth%20of%20graduates,because%20they%20lacked%20crucial%20skills>.
- Biggs J., Tang, C. (2015). Constructive alignment: An outcomes-based approach to teaching anatomy. In: Chan L., Pawlina W. (eds) *Teaching anatomy*. Springer, Cham. [https://doi.org/10.1007/978-3-319-08930-0\\_4](https://doi.org/10.1007/978-3-319-08930-0_4)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brown, H. D. (2004). *Language assessment: Principles and classroom practices*. Pearson Education.
- Curriculum Bylaw, (2018). Revised curriculum bylaw. Ministry of Higher Education, Kabul. Afghanistan.
- English Department Report (2018). Tracking English department's graduates. Unpublished report from Faculty of Letters and Humanities, Herat University.
- Felder, R. M. and Brent, R., (2003). Designing and teaching courses to satisfy the ABET engineering criteria. *Journal of Engineering Education*, 92(1), 7-25.
- Gettinger, M., & Seibert, J., K., (2006). Best practices in increasing academic learning time. *Best Practices in School Psychology*, 5, 1-15.
- Hassan, M. S. (2012). Challenges of implementing outcome based engineering education in universities in Bangladesh. In 2012 7th International Conference on Electrical and Computer Engineering (pp. 362-364). IEEE.
- Jager, A. D. (2002). An integrated and holistic approach to assessment in outcome-based learning in South Africa. Thesis submitted to Faculty of Education, University Pretoria.
- Johnson, D. W., Johnson, R. T., and Smith, K. A., (2007). *Active learning: Cooperation in the college classroom*, interaction book company, Edina, Minn.

- Mohammad, S., & Samian, Y. & Phang, F. A. (2016). Outcome-based education (OBE): An overview. Centre for engineering education. Universiti Teknologi Malaysia. Malaysia.
- MoHE-teaching, Material Policy, (2018). Policy on university teaching materials. Ministry of Higher Education, Kabul. Afghanistan.
- Lee, H. (2003). Outcomes-based education and the cult of educational efficiency: Using curriculum and assessment reforms to drive educational policy and practice. *Education Research and Perspectives*, 30(2), 60–107.
- Patton, M. Q. (2002). Qualitative research. Encyclopedia of statistics in behavioral science.
- Rajaei, N. Junaidi, E. Taib, S.N.L. Salleh, S.F. & Munot, M. A. (2013). Issues and challenges in implementing outcome based education in engineering education. *International Journal for Innovation Education and Research*. (1) 1-4.
- Ramoroka, N. J. (2007). Educators' understanding of the premises underpinning outcomes-based education and its impact on their classroom assessment practices. Thesis submitted to Faculty of Education, University Pretoria.
- Roberson, S. K. (2006). Do schools kill creativity. TED ideas worth spreading. Retrieved from:  
[https://www.ted.com/talks/sir\\_ken\\_robinson\\_do\\_schools\\_kill\\_creativity?language=en](https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity?language=en)
- Sekhar, C. R., Farook, O., and Bouktache, E. (2008). Continuous improvement process based on outcome based education. Proceedings The 2008 IAJC-IJME International Conference. ISBN 978-1-60643-379-9
- Spady, W. and Tang, C. (2015). Constructive alignment: An outcomes-based approach to teaching anatomy. In *Teaching Anatomy: A Practical Guide*. 1<sup>st</sup> Ed. New York, NY: Springer.
- Spady, W. (1986). The emerging paradigm of organizational excellence: Success through planned adaptability. *Peabody Journal of Education*, 63(4), 53.
- Spady, W. (1988). Organizing for results: The basis of authentic restructuring and reform. *Educational Leadership*. Vol. 46, No. 2 pp. 4–8.
- Spady, W. (1993). Outcome-based education. Belconnen, ACT: Australian Curriculum Studies Association.
- Spady, W. (1994). Outcome-based education: Critical issues and answers. Association of School Administration, Arlington Virginia: America.
- World Economic Forum, (2018). The future of jobs report. World Economic Forum. Retrieved from [http://www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs\\_2018.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf)
- Wright, G. B. (2011). Student-centered learning in higher education. *International Journal of Teaching and Learning in Higher Education*, 23(1), 92-97.
- Yu, F.-L. T. (2016). Outcomes-Based Education: A Subjectivist Critique. *International Journal of Educational Reform*, 25(3), 319–333. <https://doi.org/10.1177/105678791602500306>
- Zeynal, H. Zakaria, Z. Anisseh, M. and Mansoorzadeh, S. (2017). Strategic implementation of outcome-based education system in Buein-Zahra Technical University of Iran. IEEE 9th International Conference on Engineering Education (ICEED), Kanazawa, Japan