

Developing the capacity of Nigerian teachers in training through constructive alignment principles

Bakky Ngozi Adirika & Geoffrey Chiweyite Onyebuchi

Abstract

Constructive alignment is an outcome based approach to teaching in which the learning outcomes that students intend to achieve are defined before teaching takes place. The principles behind the concept of constructive alignment had been with experts in the field of curriculum studies since the time the classical theorist Ralph Tyler posed the four very important questions that have influenced teaching to date. However, the effective negotiation of intended learning outcomes and the alignment of leaning activities and assessment methods have remained serious missing links generally, making it difficult for Nigerian teachers to effectively develop the capacity of their students to competitively stand out in all professional and employability skills that should constitute the hall mark of the educated. Teachers cannot give what they do not have. Thanks to globalisation efforts and the sharing of successful efforts for the good of humanity. Participating in Tuning Africa II program exposed us to insights that would assist the Nigerian teacher to prove his mettle and develop in his student, the ability and respect that would forge him into an individual of confidence, skill and honour. This paper shares these insights.

Key words: *constructive alignment, ILOs, learning tasks, competences, quality enhancement*

Introduction

Constructive alignment is a design for teaching in which what is intended to be learnt by students and how they should express what has been learnt is clearly stated before teaching takes place. It is a design that is quality enhancement oriented. The idea is to ensure that teaching and assessment methods are constructed in ways that best achieve intended learning outcomes. Outcome approaches have the single goal of improvement and enhancement of student learning through improved teaching quality. This is the core of capacity development in educational institutions.

In the Nigerian setting, many quality assurance and academic regulatory boards exist. Commissions like National Universities Commission (NUC), National Council for Colleges of Education (NCCE) Universal Education Commission (UBEC) easily come to mind. However, the educational system does not seem to have improved significantly in spite of the multiplicity of regulatory boards and the impact of quality assurance agencies. That is why we are motivated to share our insights and thoughts from the experience we gained.

We participated in Tuning Africa II program, a program in which our University, Nnamdi Azikiwe University, Awka was involved. The Tuning program is an offshoot of partnerships developed out of efforts at forging linkages and networking for global concerns. Globalisation is a concept that has permeated practically every human consideration and endeavour. Every nation seems to conceive education as an instrument for capacity building (Adirika, 2014).

Thanks to the Bologna process that culminated in Europe agreeing on a common set of standards and guidelines for quality assurance in the European higher education. This eventually led

to the launching of the Tuning Educational Structures in 2001 by a large group of Universities from the vast majority of European countries. Without interfering with university autonomy, Tuning concentrated its efforts on the level of subject areas. It devised a methodology to redesign, develop, implement and evaluate study programs for enhanced educational efforts.

Tuning methodology reference points were expressed in terms of learning outcomes and competences. Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after completion of a learning experience. Competences represent a dynamic combination of cognitive and metacognitive skills, knowledge and understanding, interpersonal, intellectual, practical skills and ethical values; these competences represented the acquisitions demonstrable in use. They are part of the important profiles in constructive approaches. Stakeholders within an environment got together to agree on and create profiles that served as basis for identifying the right set of competences to be trained in the framework of the educational programs (Biggs, 2013).

A profile had different angles that distinguished it. Such features define its identity, function, contexts and educational processes. The identity here refers to the program, the degree, function or kind of occupation and tasks that are carried out by the graduate. The context here on the other hand refers to the environment in which the graduate is able to perform the functions so prescribed by the learning tasks as aligned with the expected learning outcomes. Every profile showed some attributes. Every profile is expected to show details regarding the following:

- Orientation (theoretical or applied)

- Subject related knowledge, know how (mono, multi, inter disciplinary)
- Generic competences
- Subject specific skills
- Level of qualification (role, of descriptions)
- Employability-(regulated and non regulated)
- Social and professional responsibility
- Particular focus/specialisations
- Approaches to teaching, learning and assessment.(Larkin and Richardson, 2013)

Much as many of us teaching in our faculty are professionals, in that we underwent teacher training programs of various forms, many of us find it difficult to effectively participate in the creation of profiles that are likely to focus student learning and culminate in stabilised knowledge, attitudes and very competitive skills, distinguishable of educated personality. Some of our students still roam the streets and lament about not finding jobs for which they were trained! The reason is that we are not focussing on constructive approaches and principles. Many of us, true to the name we bear, ‘lecturers’ still rattle through hours in classrooms believing that students pick what we say and can transform them into skills even without adequate guidance from us. This needs to be changed.

A glimpse on the principles of constructive alignment

The principles behind the concept of constructive alignment were expressed by Ralph Tyler in 1949 only that it took educationists a relatively long time to think about it roundish. Tyler posed critical questions that have influenced curriculum to date hence they are

still being reviewed to better decipher their real import and sense. Tyler's questions were as follows:

1. What educational purposes should the school seek to attain?
- These referred to goals or outcomes that schools should achieve in the students.
2. What educational experiences can be provided that are likely to attain these purposes? - These referred to learning activities that would be so engaging that they automatically and naturally enrich students' experiences.
3. How can these educational experiences be effectively organised? - These again refer to procedures and processes that would actualise the goals.
4. How can we determine whether these purposes are being attained?-this alludes to assessment.(Tyler, 1949)

These questions never really implied that it is only the teacher that would attempt to find answers to them all. That is the point of deviation. Constructive alignment strives to involve everyone, particularly the learner in decisions that would help to make or mar him.

In identifying the goals of education, it is easier to place them in terms of behaviour to be developed in the learners to enable them perform/operate in general and particular contexts or areas of life. It is really within the process of active involvement that students develop and exhibit these behaviours, not necessarily by cramming texts and bodies of information mapped out for them to cover and then regurgitating same just to collect certificates as if education is mere certificate dishing and collection between teachers and their students through the schools.

The implication of using the constructive approach, according to Shuell (1986) is that the teacher's task is mainly to

get students to engage in learning activities that would result in their achieving identified outcomes. This is more than a teacher standing for an hour or more talking while students take note. Teachers need to negotiate with their students on a series of learning activities they should undertake, including how they would want to deal with them. This effort makes it clear to everyone what they are to do with whatever content they learn, problems they would use the knowledge to solve, including possible problems that they may encounter in their learning tasks engagements. All these are best couched in actions, verbs directing actions - they help learning activities to easily fall in place that way! As they work, analytic assessment in formative and useful modes appear and alert them on weak aspects of performance while the final summative assessment logically shows how well the performance had been carried out. Do all these not make learning significant and worth anyone's desire? That is why a change needs to be initiated in many teacher development programs to provide the required redirection.

Point of departure

Our concept of constructive alignment in teaching presupposes viewing teaching as a multilayered ecosystem. Constructive alignment takes place at various levels. In Nigeria, there is the apex where the Federal Ministry of Education with such bodies as NUC, UBEC, NCCE etc identify basic purposes the programs for their different levels and constituencies should serve. These are further adjusted/ adopted/modified within acceptable limits at institutional levels. It did not use to be like this since the inception of higher education in Nigeria.

Until the nineties, universities had real autonomy and various faculties considered it their responsibilities to map out the best

content in their own discretion, to be pursued by their clientele. Teachers tried to apply their own discretions too- all in the name of academic freedom. There may have been a variety of learning focussed by the different universities at that period but it is arguable that their products were qualitatively better cooked in comparison to what is in place now. The government, however, for whatever reasons taught of harmonisation in quality and quantity. The issue is whether much has been achieved. We have tried the unified universities matriculation examination; quality control agencies like NUC and the like that later emerged were mandated to strive for harmony and standard. These measures seem to have worsened the situation due to corruption and leadership irresponsibility at government, agency and institutional levels. CA could be a way out (Larkin and Richardson, 2013).

The proposal is to start even at the single teacher and classroom level and work upwards from there. Each teacher can set up an ongoing set of negotiations in his or her teaching efforts. Whether these are different from those of other teachers teaching the same class should not be considered absolutely important. What should count is whether the subsystems are supportive of the wider system comprising department, faculty, institution or other offerings. The situation where the nested systems are constrained by rules that are subsumed by next higher levels are excluded and downplayed because constructive alignment is constrained by such hierarchy of rules and procedures.

Consider as an example, the situation in our institution, as in many Nigerian universities, where continuous or in course assessment is limited to 20% or 30% and final assessment by examination assigned 80% or 70%. This jeopardizes alignment between intended learning outcomes (ILOs) and assessment because the range of possible aligned assessment tasks is

constrained so as face to face contact hours can jeopardize work based hours which in turn make learning difficult because of insufficiency on intensity scale.

There is a need to understand that primarily, the teacher should construct a new paradigm. In this new scenario, the old conception that teaching is just knowledge transmission should be replaced with a new concept that education and teaching is about competence development in students (Adirika, 2014). The old conception of knowledge as behaviourism should be replaced with the concept of knowledge as ‘constructionism’ and teaching makes it ‘constructionistic’ at every turn. The teacher must really accept and put into practise the notion that teaching is not just teacher centred but should be student centred. It’s not all about identifying objectives to be achieved but identifying outcomes already achieved in action and within action. In other words, intended learning outcomes are very important being the statements that describe what students should know or be able to do at the end of a learning experience, unit or course not just their approximations.

Objectives are termed inputs and they state teacher purposes, goals or intentions but not really what are seen as achieved by the target for whom they are drawn. They are mere expectations. The advantage here is that ILOs are course products, as seen in students’ performances, competences achieved by the students, incorporating what they should know, do, and value when they arrived at the end of a learning opportunity. Intended learning outcomes facilitate the monitoring and identification of actual learning outcomes. (Biggs, 1996)

Features of ILOs

ILOs are measurable; they are focussed, balanced and simple. Teachers are not the sole manufacturers of these. They only facilitate their development and fine tuning. In terms of measurement, criteria are clear and become standards to be achieved distinctly and metacognitively. They should focus on precise outcomes. They are not necessarily multipurpose. Simplicity demands the exclusion of jargons that can confuse learners. They must be understood by students after all, they are involved in their articulation. The balance dimension strives to ensure that intended learning outcomes are neither too specific nor too generic that they lose focus. Effort is made to allow one thing lead gradually into another instead of a direct lopsidedness. These may not be very easy but they are not impossible to achieve.

Creating learning environments using teaching and learning activities that engage students meaningfully and actively is a great way of activating ILOs. While the activities and tasks are in progress, they can be used to assess how well the predetermined rubrics are met in student performances in terms of earlier stipulated criteria. Whatever judgements that are reached can be transformed into final grades. An important idea here is that both the feedbacks and feedforwards in assessment tasks are constructively built into an alignment in the interest of the learner. The verb used in couching the ILO is the common link between the teaching/learning activities, the assessment tasks and procedures as well as the ILO itself.

It is important to note that the concept of alignment is familiar from curriculum theory as in criterion referenced assessment. Cobham and Jacques (2006) assert that criterion referenced assessment is a ‘magic bullet’ in learning.

Constructive alignment takes the additional step of aligning teaching methods, assessment, and intended learning outcomes.

Why consider Constructive Alignment for Nigeria?

This paper is encouraging the use of constructive alignment for developing the skills and abilities of the teachers in training in Nigerian Universities. Teaching learning activities in Nigeria seems to be highly teacher oriented yet. Teachers draw on objectives set at apex level and try to drown students in the sea of these whether such students find them significant or not. They focus on covering their stipulated contents and syllabus whether students master the rudiments or not. There is an insatiable copying habit already embedded in the Nigerian education system that nobody pays much attention to critical environmental issues in learning. Shall we continue in these?

It has already been noted that competences can be developed and achieved at different levels. Teachers in training, if they acquire the proper and effective approaches that would enable them bring up children henceforth in their own interest, and for their own good, in consonance with constructive reflection; the future might yet be saved. They need to be helped to reflect on the effectiveness of teaching learning activities and assessment methods. This will help them to determine where there are problems. It is a worthwhile quality enhancement mechanism that should be ideally built into teacher development systems from the outset.

Biggs and Tang (2011) argue that quality enhancement mechanisms reveal areas where administrative structures impede constructive alignment from working properly. Most administrative setups in Nigeria are after minimum standards. They are less concerned about generating and implementing

innovative teaching systems such as constructive alignment. We cannot continue to feign that all is well when our graduates roam the streets with certificates that cannot be effectively defended.

It is needful to work assiduously with all stake holders to identify competences and develop them as part of a program. Competence levels are not just developed during one course unit. There are different elements that are distinguished. First, the learner has to be familiarized with the content of specific and generic competence. Whatever knowledge, understanding, skills, abilities, attitudes and sometimes values, should be clearly understood and accepted by the learners so they focus on them in their learning efforts. It is also required that the most effective learning and teaching strategies for developing the competences be identified. This involves the selection of activities that should fit the available and calculated student time as expressed in credit loads. The Nigerian teacher needs to be methodically led through these. The reliable way to achieve this is to infuse CA in their development strategy.

Until the students are made to construct their own knowledge and interpret reality through interaction with their environment; they may not fully be armed with confidence adequate to venture and win in a world that is continuously throwing up uncertainties at them.

What shall we gain at the end?

The first gain would be to achieve a training system that would enhance Student centred learning. This is likely to reform students' views on education, how to achieve and acquire education, how to use education to really actualise themselves. Would this not be tremendous gain?

Learning is a social and relational process. Students would be assisted to discover this when the constructive alignment principles are implemented at the teacher training processes in Nigerian universities.

Students would learn anew to empower themselves, find help among themselves in interdependent and partnership activities. Power differences would be forgotten and eradicated. Students would work harmoniously, building each other up instead of engaging in unhealthy rivalry often emphasised in ranking assessments being used in schools at the moment. Students would aim and work towards the promotion of deep learning, understanding and reflection. The overall result would be promotion of responsibility, autonomy, self-regulation and confidence in students.

What should be focussed?

Teachers should be made to reflect on learning activities that make students discuss, summarise, analyse, assess, explain, identify and indeed solve problems. Learning activities should make students not just to identify but also explain concepts. They should draw their own concept maps and simulate situations that require them to use and explain such concepts. Searching for solution to problems or cases as well as identifying salient aspects of a case are better than perennially bothering students to solve new problems with old tools. Carrying out study visits, critically analysing journal articles, questioning teachers indiscriminately about issues should not be considered forwardness on the part of students by teachers but as necessary learning activities and processes.

Teaching methods must necessarily shift from bland lecturing to problem based sessions, interactive lessons where

discussions are freely done, seminars, tutorials, case studies, demonstrations, simulations, projects and the likes.

Assessment methods should also not just end in tests and examinations. They should include and comprise of reports on visits and field works done by students, their portfolios, written essays, oral presentations, multiple choice questions and the like. All these after all show how they operate metacognitively.

Why does this paper think that the use of constructive alignment principles would make a difference for Nigeria?

From our experience, quality assurance comes from the context of business. It has a lot of baggage that are counterproductive in academic contexts. Humans are neither robots nor lifeless materials. Quality enhancement subsumes quality assurance and this is an area where Nigeria needs to reflect deeply.

The antecedent of the Hong Kong experience where in 2002, the Head of Educational Development Centre at the Polytechnic University, Catherine Tang, was awarded a major grant for constructive alignment project by the university's grant committee (UGC). She was so successful in her project which supported CA in a number of units in various departments across the Polytechnic University that by 2006, the Chairman of UGC in Hong Kong circulated a letter calling on all universities to move toward implementing outcome based approaches to teaching and learning.

Kandlbunder and Peseta (2009) reported that CA is widely regarded as a key idea in post graduate certification in many Australian universities as well as for foundation courses in teaching and learning. Moulding (2010), Larkin and Richardson (2013) concluded that CA principles if used and well implemented in education significantly increase student

engagement in positive learning outcomes as student evaluations and grades increased. The argument is that students, through their engagements, show that they know what they know and know what they do not know and work additionally to fill the gaps they identify in their repertoire and thus achieve intrinsically motivated satisfaction in the long run.

Furthermore, quality assurance and quality enhancement is not necessarily the same thing. Whereas quality assurance operates retrospectively, quality enhancement focuses on processes that lead to achievement –not just based on external standards but introduces means of achieving them. Meeting minimal standards is exchanged with establishing fully blown quality enhancement systems in CA generally. Every stakeholder and participant is assisted to personally and collectively identify where there may be problems in teaching, learning and assessment. When results are noticed not to be as good as intended, reflective practice or action research may be used to pinpoint the problems, work at their resolution applying theories of teaching and learning to generate alternative strategies. This is what quality enhancement mechanisms do. This is needed in the re-engineering the Nigerian education system.

Possible challenges

Biggs (2011) raised some questions on CA. First is on whether CA does what it claims in terms of enhancing learning related outcomes and as a framework for thinking about teaching. He worried that CA could generate innovations that may run against institutional cultures and upturn stability. Hil (2012) asserts that predetermined learning outcomes favours ‘rigidification’ of teaching which ensures conformity to prevailing order whether they suit every student or not. All students really do not progress

at the same pace or level. Learning outcomes should be negotiated even for this singular reason. Predetermined outcomes often exclude some students especially when they psychologically are not predisposed to their pursuit. A teacher who uses the principles of CA to breakdown predetermined outcomes helps students to effectively decipher ILOs from the generic and would marvel at the result. No doubt more freedom is allowed to students to reflect and create or even design tasks, hypothesize and express themselves freely in their newfound freedom. Nigeria as a nation cannot just continue paying lip service to learner-centred education she recognised in the national policy on education document (FRN, 2014).

On issues concerning institutional cultures, Coban and Jacques (2006) found that reflective practise using CA achieved a philosophical shift in faculty assessment and delivery procedures. Adawi, et al (2011) also reported a campus wide project at Chalmers University where 35 courses redesigned using CA as a conceptual tool was found as very useful by participants.

Finance and attendant staff workload was another source of worry for Hil (2012). According to him, they leave teachers little or no time and motivation to reflect on their teaching and to innovate. Teaching for quality takes time in preparation, in providing formative feedback to students in qualitatively based summative assessments. Teacher resistance to change is another challenge that cannot be ignored. Some teachers felt that technology would take the job out of the hands at the turn of the millennium. Though some quality assurance procedures required judging academics on key performance indicators, using CA principles may give added stress to teachers. Some teachers also focus on research productivity that is used for their promotion instead of on improving teaching. Every job has a measure of

hazards it contends with. Teachers should be well disposed to working hard to make their profession very proficient, efficient and classical. This is a journey started early and never really ended.

Conclusion

If we continue to lecture or teach our teachers in training just to lecture their students when qualified, we would be achieving about five percent learning and retention. When we teach them to make their children to read, we achieve about ten percent learning and retention rates on the average. When we make them discuss, fifty percent learning and retention rates are met but when we get them to practice by doing, a significant level, seventy five percent retention and learning rate is achieved. When they teach others to teach others effectively, we gain a glamorous ninety percent retention and learning level. Nigerians should rather advocate this in every university's Faculty of Education. This is also strongly recommended for every other African nation that needs to enhance their educational processes.

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Bakky Ngozi Adirika is an associate professor in the Department of Educational Foundations, Nnamdi Azikiwe University, Awka.

Geoffrey Chiweyite Onyebuchi is a lecturer in the Department of Educational Foundations, Nnamdi Azikiwe University, Awka.