

# Incorporating the Tuning Approach in Higher Education curricular reforms and course design in Tanzania for enhancing graduates' competencies: stakeholders' views\*

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**Abstract:** Available documentary and research evidences reveal that the majority of Tanzania universities' graduates (public and private universities) lack competencies or technical skills (employability skills) required for the job market and by potential employers, despite massive curricular reforms implemented in the public higher education sector since the early 1990s. Lack of employability skills which consequently leads to graduate unemployment or un-employability is attributable to the fact that curricular reforms and design in Tanzania public universities undertaken by lecturers and professors do not incorporate basic Tuning principles of competence-based teaching and learning which puts emphasis on competencies and skills by identifying generic and specific competencies during course design or curriculum reform. This study using the University of Dar es Salaam (UDSM)'s School of Education sought to: (1) explore faculty and students' views on the application of the Tuning approach in curricular reforms and degree/course design as a mitigation of university graduates' unemployment and un-employability, (2) solicit stakeholders' (academic staff and students) perceptions of Tuning approach and its relevance in higher education curriculum reforms and design to make higher education more competence-based, and (3) find out students perceived causes of graduate unemployment and un-employability and whether the application of Tuning approach in curriculum reforms and design in universities can be a solution to graduate unemployment. Findings from the study reveal that both faculty and students concur that application of Tuning approach in

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higher education reforms and curricular design could enhance graduates competences and skills and reduce graduate unemployment.

**Keywords:** Tuning approach; graduate' unemployment; graduates' unemployability; market-driven degree courses; and graduate competencies.

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## I. Introduction

The public higher education sector in Tanzania has undergone a plethora of curricular reforms<sup>1</sup> mainly as a response to the changing labor market demands and globalization; but also as a logical response to the declining government's budgetary allocations to public universities, since the early 1990s. Public universities have aggressively introduced the so-called market driven degrees and non-degree courses as an economic survival strategy to mitigate inadequate government budgetary allocations. Despite the introduction of massive curricular reforms<sup>2</sup> university education in Tanzania (particularly the social sciences and humanities), remains largely theoretical and graduates leave universities without adequate requisite competencies<sup>3</sup> to make them employable or self-employed.<sup>4</sup> A recent (2014) survey of employers' opinions of university graduates competencies and skills in the East African region (conducted by the Inter University Council of East

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<sup>1</sup> The conceptualization of curricular reform (in the context of this paper) is adopted from Maria Slowey and Kozina Ekaterina, "New Knowledge-New Learning? Curriculum Change in Higher Education and Academic Engagement in the Bologna Process in Ireland," to mean curriculum changes or redesigning of new courses in universities as a result of interplay of national, global and institutional factors.

<sup>2</sup> Curricular reforms in universities have been mainly characterized by re-designing or repacking courses, introduction of new courses perceived to be marketable and phasing out departments deemed to be unproductive in terms of generating extra income from part-time students

<sup>3</sup> Although there are several definitions of the concept of 'competence', in this paper, *competence* simply refers to applied skills and knowledge derived from an academic program that enable a university graduate to effectively and successfully perform or function in work organizations and society. In the context of the University of Dar es Salaam's vision and mission, graduate 'competence' mean a skilled graduate who can create jobs as opposed to seeking a job.

<sup>4</sup> This view is also shared by the Tanzania Private Sector Foundation (TPSF). During a workshop on internship training for recent graduates (February 2017), the Executive Director of the Foundation observed that the majority of Tanzanian university graduates, among other skills lacked problem solving ability and innovation prompting employers to hire foreign professionals/graduates. His major recommendation is that universities should equip students with more practical skills and competencies rather than being theoretical.

Africa)<sup>5</sup> revealed that over 50 percent of the graduates lacked job market skills and were unfit for jobs. In specific terms, the survey revealed that in Tanzania 61 per cent of university graduates lacked job skills; while in Uganda 63 per cent of the new graduates lacked requisite job skills.

The survey cited above generally concluded that graduates from the East African universities lacked employability skills, i.e. technical mastery and basic work-related capabilities. The study mainly attributed graduates lack of skills and competencies to massive enrolment expansion in universities without corresponding availability of adequate infrastructure, teachers, teaching and learning resources and inadequate funding. However, the crux of the matter is that higher education reforms and design of new courses do not apply Tuning approach which advocates design of new courses using the basic Tuning principles of generic and specific competencies. Tuning approach has been instrumental in designing competence and skill based degree programs in other parts of the world (e.g. Central and Latin America, Europe and China) through developing generic and specific competencies preferred by employers from university graduates.<sup>6</sup> In my view, the application of Tuning principles in curricular reforms/design is a part of the long-term solutions for graduates' unemployment<sup>7</sup> in the East African region and also an instrument for harmonization of higher education system in the region. Harmonization of higher education, is one the objectives for introducing the Tuning approach in Europe, Central and Latin America, China and recently (2012) in Africa through the Tuning Project (Phases I & II)<sup>8</sup> Harmonization of higher education has been one of the main but un-implementable agenda of the Inter University Council of East Africa (IUCEA)<sup>9</sup> because of partisan nationalist interests of

<sup>5</sup> The results of this survey are reported in "The East African" newspaper of June 12, 2014. See <http://www.the.eastafrican.co.ke/Over-50-percent-of-graduates-of-East-African-graduates-half-baked-2558-2345578>.

<sup>6</sup> Karola Hahn and Damtew Teferra, "Tuning as Instrument of Systematic Higher Education Reform and Quality Enhancement: The African Experience," *Tuning Journal for Higher Education* 1, no. 1 (2013): 127-163.

<sup>7</sup> Empirical data on graduate unemployment in the East Africa region is lacking; although the report cited above admits that graduate unemployment is "a time-bomb" because universities were producing "theoretical graduates" who apart from "lacking technical mastery required in the jobs they were seeking" also lacked self-confidence and could not express themselves clearly in English, a medium of instruction in universities.

<sup>8</sup> Hahn and Teferra, "Tuning as Instrument of Systematic Higher Education Reform and Quality Enhancement: The African Experience."

<sup>9</sup> The Inter University Council of East Africa is an intergovernmental higher education organ, which among other functions, facilitates internationally comparable higher education standards in East Africa in order to promote the region's competitiveness in higher education.

each partner state to keep a distinct “national” higher education system aligned to the nations’ strategic interests and development objectives. Partisan nationalist interests make harmonization of the higher education systems through Tuning approach in the East African region impossible, although one of the major objectives of IUCEA is to facilitate internationally comparable higher education standards, which can be achieved through the application of Tuning approach.

The major rationale for curricular reform and new course design in public universities in Tanzania is to make university education more competence and skill-based to enable graduates effectively function in the labor market and in the society at large, but apparently this objective is unachievable because of the wrong approach to curricular/course design and absence of competence-based learning (CBL) in our universities. CBL, as Aurelio Villa Sanchez and Manuel Poblete Ruiz<sup>10</sup> argue, “is valued by employers because it better enables students to apply their knowledge”. They further argue that “today more than ever, higher education is expected to develop abilities and skills that can be applied to situations at work and in society that students will encounter when they finish their studies”.<sup>11</sup> Competence and skill-based higher education is of critical importance in the current era of knowledge economy where as Mushi observe, employers have shifted from using certificate (grades) for recruitment of graduates and are now “looking for capabilities beyond a list of subjects defined in the certificates”.<sup>12</sup> Mushi also cites graduates’ unemployment as one of the rationale for curricular reforms in higher education in Tanzania.<sup>13</sup> The above rationales for curricular reforms in higher education makes the Tuning approach (the world-wide acknowledged approach for competence and skill based curriculum design and implementation an indispensable instrument to tackle graduate unemployment in Tanzania, which as the survey cited earlier revealed) is mainly caused by lack of employable skills. Graduate unemployment in Tanzania although not widely acknowledged in research and not specifically captured in the national employment and labor force surveys remain a challenge. As Ndyali<sup>14</sup> observes, there is a mismatch between what is taught/

<sup>10</sup> Aurelio Villa Sanchez and Manuel Poblete Ruiz. “Competence-based learning,” in *Competence-Based Learning: A Proposal for Assessment*, ed. Aurelio Villa Sanchez and Manuel Poblete Ruiz (Bilbao: University of Deusto, 2008), 31-62..

<sup>11</sup> Villa Sanchez and Poblete Ruiz, “Competence-based learning.”

<sup>12</sup> Mushi, Paul Sawaya Dominic, “Capacity Plunder in the Educational Reform Processes in the Regional Africa: The Need for Intersession in Curriculum” (paper presented at PGDCDD, Dar es Salaam, 2009), 5.

<sup>13</sup> Mushi, “Capacity Plunder in the Educational Reform Processes in Regional Africa. The Need for Intersession in Curriculum.”

<sup>14</sup> Lyata Ndyali. “Higher Education System and Jobless Graduates in Tanzania.” *Journal of Education and Practice* 7, no. 4 (2016): 116-121.

learned in Tanzania higher education institutions and the labor market demands, hence graduate unemployment. This article is organized as follows: section one is an introduction, section two describes objectives of the study and research questions, section three describes research design and methodology, while section four presents literature review, section five present findings and analysis. The last section (six) presents conclusions based on findings.

## II. Objectives of the study and research questions

### II.1. *The study was guided by the following objectives and questions:*

- Find out UDSM's academic staff's general understanding and awareness of the Tuning methodology and its significance in higher curricular reforms and course design.
- Explore UDSM's academic staff's views on the application of the Tuning approach in curricular reforms/design as a strategy of making university education competence/skill based and relevant to reduce graduates' unemployment and enhance graduates' employability
- Find out academic staff views on market-driven degree programs introduced in public universities in terms of being competence/skilled-based, relevant and their contribution to national development, and their potentiality of enhancing graduates employability.
- Solicit students' views on the application of the Tuning approach in curriculum design in universities to make university education more competence-based to enhance graduates' employability

### II.2. *Research questions*

Four research questions derived from the above objectives guided the study:

1. What is the level of understanding and awareness of the Tuning approach among academic staff at the University of Dar es Salaam, particularly in the School of Education?<sup>15</sup>
2. What are the views of the academic staff about graduates unemployment and potential application of the Tuning approach in curricular reforms/design as a strategy of making higher education more competence/

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<sup>15</sup> The University of Dar es Salaam has participated in both Tuning Africa Phases I & II.

skill-based to enhance graduates' competencies and skills and reduce graduates' unemployment?<sup>16</sup>

3. What are the academic staff's views on market-driven degree programs introduced in public universities in Tanzania since the late 1980s in terms of being competence/skill based, relevant to national development and likelihood of enhancing graduates' employability?
4. What are the students' views concerning causes of graduates unemployment, solutions and application of Tuning approach and competence-based teaching and learning to enhance graduates' employability?<sup>17</sup>

### III. Research design and methodology

This study employed a case study design, using the University of Dar es Salaam (UDSM), School of Education as a case. The choice of the UDSM is based on the fact that the University is Tanzania's oldest public university and has been implementing several curriculum reforms through the Institutional Transformation Program (ITP). The choice of the School of Education was influenced by the fact that, the School is one of the oldest at the UDSM, its history dating back to the 1960s when it started as a department of the University College of Dar es Salaam. Furthermore, the School is well-versed in matters related to curriculum design and evaluation and has trained several professional teachers, curriculum designers and developers.

Respondents (composed of academic staff and masters students and a Director of Undergraduate Studies) were strategically and purposely selected from the School of Education of the University of Dar es Salaam because of their solid experiences in curriculum design and reforms as professional teachers/educators. A total of 110 respondents (21<sup>18</sup> faculty and 89 graduate students) from two academic departments and one unit (Department of

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<sup>16</sup> Tuning approach has been introduced and explained to members of the academic staff at departmental meetings since 2015. Furthermore, Tuning Africa Project and Tuning approach were explained to the School of Education staff and the members of the University of Dar es Salaam through the UDSM Research Week in March 2017 where a poster describing the Tuning Project was displayed to the public.

<sup>17</sup> Students in the School of Education participated in Tuning's students' workload study where they initially interacted with the concept of Tuning. The concept of Tuning was explained to them before filling out students' questionnaire.

<sup>18</sup> This number of faculty represented about 31.3% of faculty in the School, while students represented about 25.4% of all graduate students enrolled in the School.

Educational Foundations, Management and Lifelong Learning; Department of Educational Psychology and Curriculum Studies, and the Physical Education, Sports and Culture Unit) volunteered to participate in the study.

Data were mainly collected through questionnaire (composed of closed and open items) and desk review of documents such as: *University Prospectuses* (to determine the trend in the introduction of new courses in various academic units), *Report of the School of Education Curricular Review*, and the University of Dar es Salaam Institutional Transformation Program, the document which justifies curricular reforms and designing of the new courses at the University of Dar es Salaam, as well as the *UDSM Annual Reports*. Quantitative data were analyzed using Microsoft excel to make relevant calculations, e.g. average weighted ranking of graduate competencies and presented as tables, graphs and figures where necessary. Content analysis was also used to analyze and interpret faculty and students' responses from open-ended questions in the questionnaire.

#### IV. Literature review

##### IV.1. *The state of quality of university education in Tanzania: implications for competence-based university education and process of curricular reforms in Higher Education*

University education in Tanzania is regulated by the Tanzania Commission for Universities (TCU), established in 2005 under the Universities Act 2005, to replace the Higher Education Accreditation Council (HEAC). TCU, among other functions, regulates university education by setting admission criteria into universities and criteria for establishing new universities and degree programs. The Commission also promotes student mobility through inter-university transfers. As a result of the populist liberalization of higher education policy to allow private providers of university education<sup>19</sup> mainly at undergraduate level, as of 2016, Tanzania had a total of 59 universities (48 private universities and 11 public universities<sup>20</sup>) enrolling a total of 218, 958 students, 144,157 or 66%

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<sup>19</sup> In my opinion, liberalization of the provision of higher education (although well-intentioned, ostensibly aimed at expanding access to higher education), was populist and politically motivated because of its timing closer to the 2000 General Elections. Liberalization of the provision of higher education in Tanzania has led to the proliferation of small for-profit private universities and university colleges mainly offering undergraduate degrees and diplomas and limited graduate programs particularly at masters level. Only one private university offers limited doctorates in few disciplines.

<sup>20</sup> Public universities in the context of Tanzania mean government-owned universities.

enrolled in public universities and 74,802 (34%) enrolled in private universities.<sup>21</sup> Private universities and university colleges (many of them small in size) despite their large number, enroll a small number of students because of inadequate infrastructure and shortage of academic staff and teaching and learning resources. These inadequacies and shortage have implications on delivering competence/skill-based university education. Due to the inadequate infrastructure and academic staff, the TCU recently (July 2017) banned seventeen (17) private universities and university colleges from admitting new first year students for the academic year 2017/18 for 70 degree programs mainly at undergraduate level with some few programs at graduate levels.<sup>22</sup>

Documentary evidence show that inadequate financial resources<sup>23</sup> (in both public and private universities) resulting into inadequate educational infrastructures and teaching and learning resources remain a critical constraint to offering competence/skill based university education through competence-based teaching and learning. Due to inadequate infrastructure and teaching and learning resources and massification of university education, majority of students in Tanzanian universities learn through lectures and textbooks (at times outdated) and have limited opportunities to acquire practical skills related to the labor market. Another constraint to competence-based university education is that teaching in universities is also mainly teacher-centered, giving little room for competence development. Financial constraint is more critical in tuition-dependent private universities most of them operating in rented premises and buildings in urban and semi-urban areas where they cannot expand because of lack of physical space. Lack of physical space has implication on competence-based teaching and learning and ultimately the quality of education offered in these institutions.

Apart from inadequate financial resources, there is a shortage of academic staff in senior ranks, e.g. senior lecturers, associate and full professors with extensive experience in teaching and research, necessary for

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<sup>21</sup> Tanzania Commission for Universities (TCU), *Statistical Data of Teaching Staff in Higher Education* (Dar es Salaam: TCU, 2016).

<sup>22</sup> A total of 22 universities (including 2 foreign-based universities and three public universities) were barred from admitting new students in some programs. (See Tanzania Commission for Universities, List of Universities that Have Been Banned to Admit Students 2017/18, July 24, 2017).

<sup>23</sup> For example, at the University of Dar es Salaam, Government budgetary approval and allocation vs. the University's budgetary requests approved by the University Council ranged between 41% in 2006/07 to 63% in 2010/11. This low budget approval rate creates budget deficit which the University has to struggle to fill out. The deficit has implication on the availability of teaching and learning resources which have impact on quality of teaching and learning and consequently outputs.



competence-based teaching and learning in both public and private universities. Shortage of senior academic staff has implications on quality of graduates measured by skills and competencies. Empirical evidence shows that shortage of senior academic staff is more pronounced in private universities forcing them to rely on part-time academic staff and retired academic staff from public universities.<sup>24</sup> Table 1 show student enrolments in Tanzania universities and university colleges by discipline from 2006/07 to 2013/14. Although no research data on graduate unemployment by discipline is available, anecdotal evidence shows that they are unemployed graduates in the disciplines mentioned in Table 1 because of skills mismatch and lack of skills for self-employment. Table 2 show the status of academic staff by ranks in public and private universities for 2015. In both public and private universities, the predominant academic rank is *assistant lecturer* (a training position requiring a master degree); while the professorial ranks (associate and full professor) accounts for 9.4 % only in public universities and 5.3% for private universities.<sup>25</sup> Assistant lecturers accounts for 44% of all total academic staff in public and private universities, while tutorial assistants accounted for 23%.

The implication of having the majority of academic staff in junior academic ranks in Tanzania's universities is limited knowledge production and dissemination which impacts on quality of graduates in terms of competencies and skills. Extensive knowledge production and dissemination among academic staff in universities manifests their knowledge levels and depth, and experience, all important for competence-based teaching and learning based on intended learning outcomes. This might partly explain why in the survey cited earlier at the beginning, 61% of the Tanzania universities' graduates lacked competencies and skills. In the context of Tuning philosophy, limited knowledge production and dissemination in Tanzania universities implies that universities are producing less competent or half-baked graduates who are unable to compete in the labor market apparently because they are taught or supervised by inexperienced and perhaps less skilled lecturers without terminal degrees (doctorates) in their areas of specialization.<sup>26</sup> The

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<sup>24</sup> Johnson Ishengoma Muchunguzi, "The Role of African Flagship Universities: The Case of the University of Dar es Salaam," in *Flagship Universities in Africa*, ed. Damtew Teferra (London: Palgrave MacMillan, 2017), 373-423.

<sup>25</sup> In private universities, the majority of professors are retired and include part-time professors.

<sup>26</sup> Observation show that the bulk of teaching in Tanzania universities is conducted by assistant lecturers and in extreme cases tutorial assistants who are inexperienced in terms of designing competence-based courses.

above argument is supported by Heike Mitchelsen and Frank Hartwich's,<sup>27</sup> study. In this study, researchers found out that academic staff (in African universities) with doctorates possessed more advanced scientific skills and expertise in conducting research and publishing (knowledge production and dissemination) than those with master degrees. This finding has further implication on academic staff's (in) ability to design competence based degree programs and develop competencies in students through teaching and research.

**Table 1**  
Students' Enrolments by Discipline in University  
and University Colleges in Tanzania, 2006/07-2013/14

Discipline	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Agriculture	1024	1536	1677	2026	2222	2200	2632	2867
Engineering Science	1757	2635	3889	2737	3001	9667	11566	12600
Medical Science	4101	6151	8067	5242	5749	7940	9501	10351
Natural Science	1110	1665	2891	1768	1939	1736	2077	2263
Science & ICT	5288	7932	9072	10041	11011	11715	14017	15270
Education Science	2212	3760	4382	9762	10706	10068	12047	13124
Business Mgt. & Admin.	8831	15013	19945	18177	19934	25178	30124	32818
Law & Social Sciences	16795	28852	33773	34632	37980	46607	55765	60752
Education Arts	8846	15038	17526	39050	42825	52869	63257	68914

Source: Adapted from: *Students enrolled in universities and university colleges by program categories, 2006/07-2013/14*.

Table 1 shows an increasing trend in student enrollments in all disciplines in universities and university colleges implying a need for more experienced

<sup>27</sup> Heike Mitchelsen and Frank Hartwich, *University-Based Agricultural Research: A Comparative Study in Sub Saharan Africa* (The Hague: International Service for National Agricultural Research (ISNAR), 2004).

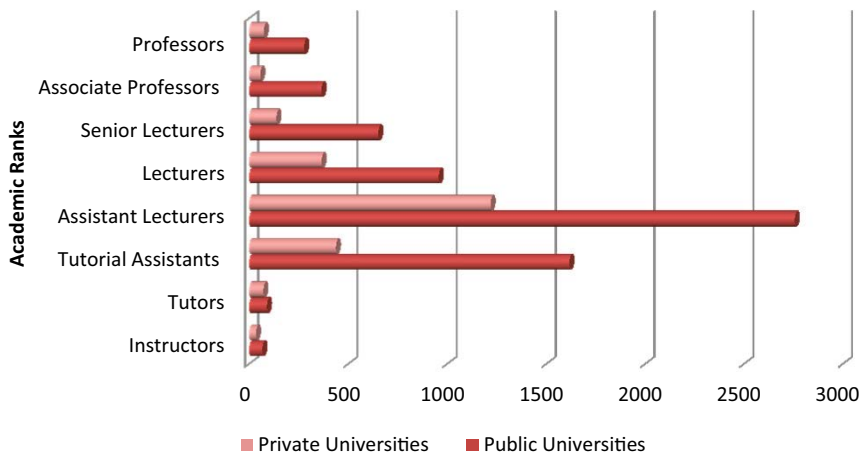
lectures with terminal degrees in relevant disciplines capable of developing students’ competencies and skills through teaching and research.

Table 2 shows academic staff ranks in public and private universities as of 2015.

**Table 2**  
Academic Ranks in Public and Private Universities, 2015

Rank	Public Universities	% Total	Private Universities	% Total
Instructors	67	0.98	34	1.4
Tutors	90	1.3	72	3.0
Tutorial Assistants	1,616	24.0	438	18.3
Assistant Lecturers	2,757	40.6	1,218	51.0
Lecturers	957	14.1	366	15.2
Senior Lecturers	652	9.6	138	5.7
Associate Professors	365	5.4	56	2.3
Professors	278	4.0	74	3.0
<b>Grand Total</b>	<b>6,782</b>	<b>100.0</b>	<b>2,396</b>	<b>100.0</b>

Source: Adapted from *Statistical data of teaching staff in higher education 2015*. Retrieved on 11/28/2016, [www.tcu.gov.tz](http://www.tcu.gov.tz).



**Figure 1**  
Academic staff ranks in universities and university colleges in Tanzania

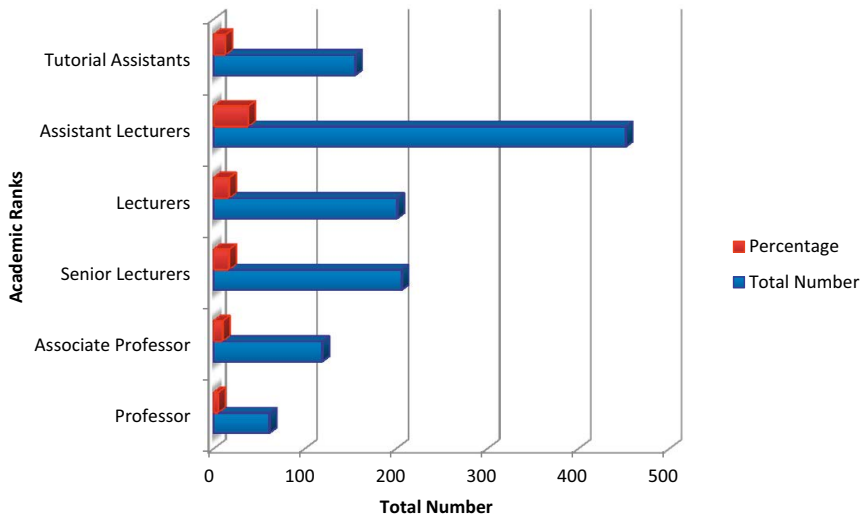
Academic staffing position by ranks at the University of Dar es Salaam (UDSM) for the 2013/14 academic year is summarized in Table 3 below. As is the national scenario of academic staff by ranks in universities in Tanzania, assistant lecturer position dominates all academic positions (38%) at the UDSM. Full professors accounted for 5%, while associate professors accounted for 10%. Senior lecturers and lecturers accounted for 17% each and tutorial assistant for accounted for 13%. It is important to note that as in private universities, professorial ranks at the UDSM also include retired professors employed on contract. Without this cadre of professors the number of professors is likely to be even lower. Due to the shortage of academic staff, assistant lecturers conduct the bulk of lectures (in many cases teaching large classes) and lead seminars at the undergraduate level. As argued earlier academic ranks have implications on the level of knowledge production and dissemination which are very crucial in developing competencies and skills among potential graduates.

**Table 3**  
Academic Staff by Ranks at the UDSM Main Campus, 2013/14

Academic Rank	Number	Percentage Total
Professor	61	5.0
Associate Professor	119	10.0
Senior Lecturers	206	17.0
Lecturers	201	17.0
Assistant Lecturers	452	38.0
Tutorial Assistants	155	13.0
<b>Total</b>	<b>1,194</b>	<b>100.0</b>

Source: Adapted from *UDSM Annual Report 2013/14*, 59.

In the preceding sub section (III.1) the major argument being made is that the quality of university education in Tanzania is being constrained by two factors: inadequate financial resources which leads to a host of other challenges such as inadequate teaching and learning materials and quality of academic staff (measured by academic ranks and research publications). The two factors are major constraints to delivering competence-based university education to the students. Due to the shortage of senior academic staff in universities (public and private) assistant lecturers and new PhD holders



**Figure 2**  
Academic staff by ranks at the UDSM Mwalimu Julius Nyerere Campus, 2013/14

(majority trained abroad<sup>28</sup>) without adequate experience in university teaching and research conduct a large part of teaching at both undergraduate and postgraduate levels, in many cases teaching large classes where teacher-student interactions are limited. Adequate teacher-student interactions are critical in developing competencies and skills among students. In sub section III.2 below, the framework for curriculum/reform in higher education in Tanzania is discussed in the general context of incorporating Tuning approach in curriculum design in higher education in Tanzania.

#### IV.2. Framework for curriculum design/reforms in higher education in Tanzania

Curriculum design/development in higher education in Tanzania, is theoretically guided by the Tanzania Qualification Framework (TzQF) 2010

<sup>28</sup> Doctoral training in local universities may take between three (3) to seven years (7). Thus many academic staff in both public and private universities avoid registering for doctoral studies in local universities unless they have failed to secure scholarships to study abroad.

developed by the Tanzania Commission for Universities. The TzQF is aligned to the East African Qualifications Framework for Higher Education (EAQFHE), 2015, a tool developed by the Inter University Council of East Africa on behalf of the East African Community (EAC) “for guiding higher education institutions in the East African region in curriculum development, delivery, assessment and certification in line with the needs of the labor market.”<sup>29</sup> Curriculum development/design in higher education in Tanzania should also be guided by *Roadmap to Quality. Handbook for Quality Assurance in Higher Education (2010)* developed by IUCEA, especially Vol. 1 “Guidelines for Assessment at Program Level”. The *Roadmap* stipulates 18 aspects to be considered when assessing a degree programme, theoretically, all with implications to graduates’ competences and employability because of the emphasis on quality of the input, process, and output. The eighteen (18) aspects form a model for self-assessment of teaching and learning divided into: *process, input and quality assurance*.

*Process* is composed of: program specification, content and organization of the program, teaching/learning strategy, and student assessment; while input is made of quality of academic and support staff, profile of students, student advice and support and facilities and infrastructures; quality assurance is composed of student evaluation, curriculum design, staff development activities, and benchmarking.<sup>30</sup> The eighteen (18) aspects for program assessment are summarized below in rank order are to be integrated in higher education curriculum design/development to enhance graduates’ employability.

1. Stakeholders’ requirements of a program
2. *Expected learning outcomes*
3. Program specification
4. Program content
5. Organization of the program
6. Didactic concept/Teaching/learning strategy
7. Student assessment
8. Quality of academic staff
9. Quality of support staff
10. Students’ profile
11. Student advice and support

<sup>29</sup> East African Community (EAC), *East African Qualification Framework for Higher Education (EAQFHE)* (Arusha: EAC, April 2015).

<sup>30</sup> Inter University Council of East Africa (IUCEA), *Roadmap to Quality. Handbook for Quality Assurance in Higher Education* (IUCEA: Kampala, 2010).

12. Facilities and infrastructures
13. Student evaluation
14. Curriculum design
15. Staff development activities
16. Benchmarking
17. Achievement of graduates; and
18. Stakeholders, satisfaction

The TzQF specifies qualification levels and *competence descriptors* for each qualification level. The competence descriptors correspond to the learning outcomes for each qualification level specified in the East African Qualification Framework for Higher Education. The framework indirectly applies some Tuning principles such as outcome/competence-based learning and intended learning objectives (ILOs). The framework generally classifies higher education qualifications as follows: (a) school sector qualifications, (b) vocational and technical sector qualifications, (c) university education qualifications, and (d) professions. Among other objectives, the TZQF seeks to generate qualifications that are *internationally comparable* and promote competence-based assessment practices and qualifications. University sector qualifications are classified into:

- Higher diploma
- Bachelor's degree
- Postgraduate certificate/postgraduate diploma
- Master's degree; and
- Doctorate degree

All of the qualification levels above emphasize outcome-based curriculum design/development expressed through a range of generic knowledge and understanding, competencies, skills and abilities in a specific area. The intended learning outcomes are grouped under three major themes ostensibly with implications to competencies: *knowledge and understanding*, *practical skills and understanding*, and *communication skills*. These themes (which are essentially learning outcomes) have implications on employability of graduates. Tables 4 and 5 show intended learning outcomes for bachelor, master and doctorate degree as stated in the qualifications framework. The TzQF is a useful tool for incorporating Tuning approach in designing competence/skill based degree programs but practically it is not used by many universities because apparently, it is not clearly understood by course designers in universities. This observation is based on experience as a reviewer of new degree courses submitted by different universities (public and private) to the Tanzania

**Table 4**  
Competencies Related to Intended Learning Outcomes (ILOs) for Bachelor’s Degree

Knowledge & Understanding	Practical Skills & Understanding	Communication Skills
<ul style="list-style-type: none"> <li>• A broad based knowledge with substantial depth in subject areas</li> <li>• A critical understanding of a selection of the principal theories and technologies</li> <li>• Analytical interpretation of a wide range of data</li> <li>• Synthesize and evaluate information and data in the subject area and general practice</li> </ul>	<p>The holder of a Bachelor’s degree will be able to carry out <i>work processes</i> that:</p> <ul style="list-style-type: none"> <li>• Require a wide range of specialized technical or scholastic skills</li> <li>• Involve a wide choice of standard and non-standard procedures</li> <li>• Are employed in a variety of routine and non-routine contexts</li> </ul> <p>The holder of a Bachelor’s degree should also:</p> <ul style="list-style-type: none"> <li>• Practice routine principles of enquiry and or research</li> <li>• Determine appropriate methods and procedures to manage concrete problems with some theoretical elements</li> </ul>	<ul style="list-style-type: none"> <li>• Effective communication of ideas, problems and solutions to both specialists and non-specialists audiences</li> <li>• Communicate with professional level peers, seniors colleagues and specialists</li> <li>• Use a range of IT applications to support and enhance work</li> <li>• Interpret, use and evaluate a wide range of numerical and graphical data to set and achieve goals/ targets</li> </ul>

Source: Adopted from: Tanzania Commission for Universities, *Tanzania National Qualifications Framework. Final Draft.*

Commission for Universities for accreditation. For example, designers of most program reviewed failed to clearly define intended learning outcomes and competencies/skills in a particular degree program. In many cases ILOs were confused with program/course objectives. However, one can convincingly argue that competencies related to ILOs for various degree levels stipulated in TZQF are related to graduates employability.

To what extent are the above intended learning outcomes (ILOs) achievable and capable of making a graduate holder of bachelor’s degree competent and competitive in the Tanzania labor market and beyond is open to debate given the constraints (financial and human resources) facing



universities in Tanzania. The major limitation with the above intended learning outcomes for a bachelor's degree in the Tanzanian or East African context is that they are vague and un-measurable. Another limitation is that the ILOs are not directly aligned to what comes out of the major surveys on what most employers want (in terms of skills and competencies) from university graduates with a bachelor's degree. Elsewhere in the world, most surveys report as most important the following competencies/skills required by employers of university graduates which have not been captured in TzQF:

- Team working skills
- Sector-specific skills
- Computer skills
- Leadership
- Flexibility at workplace
- Good reading & writing skills
- Analytical and problem solving skills
- Planning and organizational skills
- Decision making skills
- Numerical/quantitative skills (See Table 5 for descriptor of each skills)
- Foreign language skills; and
- Time management skills.<sup>31</sup>

Some of the above mentioned competencies have also been recommended in *Tuning Educational Structures in Europe*<sup>32</sup> and Tuning's *List of Generic Competencies Agreed upon for Africa*.

Table 5 summarizes competencies described by graduate employers as most important. In a broader context, the competencies described in Table 5 fit into Hanlie's and Ben's<sup>33</sup> four framing categories of graduates attributes from the employers' perspectives in the South African context<sup>34</sup> and Tuning's "List of Generic Competencies Agreed Upon for Africa" (2014).<sup>35</sup> The four broader categories of graduates' attributes used by Hanlie and Ben are:

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<sup>31</sup> See Hanlie, Griesel and Ben Parker, *Graduates Attributes. A Baseline Survey of South African Graduates from the Perspectives of Employers; European Commission. Employers' Perception of Graduate Employability. Analytical Report*; and National Association of Colleges and Employers (NACE), *Job Outlook for 2016*.

<sup>32</sup> Tuning Education Structures in Europe (2010) recommends 31 competencies.

<sup>33</sup> Hanlie and Parker, *Graduates Attributes*.

<sup>34</sup> Griesel, Hanlie, and Ben Parker. *Graduates Attributes. A Baseline Survey of South African Graduates from the Perspectives of Employees*. Pretoria, Higher Education South Africa (HESA) and The South African Qualifications Authority (SAQA), 2009.

<sup>35</sup> See Charles Owono Onana et al., eds., *Tuning and Harmonization of Higher Education: The African Experience* (Bilbao: University of Deusto, 2014).

1. Basic skills and understanding
2. Knowledge and intellectual ability
3. Workplace skills and applied knowledge, and
4. Interactive and personal skills

The competencies/skills described in Table 5 could be critical in facilitating graduates’ employability in Tanzania and other African countries, but the major challenge is how to integrate them in curriculum design/development in a context where junior academic staff with limited experience in the academia (at times also lacking competencies/skills in their subject

**Table 5**  
**Most Important Competencies/Skills Expected**  
**by Employers from University Graduates**

Competence/Skill	Descriptor
Team working skills	Ability to work confidently in a team
Sector-specific skills	Possession of skills relevant to the sector
Computer skills/ Computer literacy	Using computers to generate and manipulate data, using and creating databases, spreadsheets, Internet & e-mails, designing web pages etc.
Leadership	Ability to motivate, influence and direct others
Flexibility	Ability to adapt to and act in new challenging situations
Good reading/ writing skills	Ability to read professional texts in relevant language, ability to write technical/professional reports, including research reports
Analytical and problem solving skills	Ability to critically analyze and solve organizational problems
Planning and organizational skills	Ability to plan, organize and follow up organizational activities
Decision making skills	Ability to make right decisions based on facts and information available
Numerical/ quantitative skills	Ability to manipulate and use numbers to achieve organizational goals
Foreign language skills	Knowledge of foreign languages
Time management	Ability to manage time effectively, prioritizing tasks and able to work with deadlines

Source: Adapted from: European Commission. *Employers’ perception of graduate employability. Analytical report*; NACE, *Job outlook for 2016 Survey*, “What are the top ten skills that employers want?” accessed April 28, 2017, <https://www.kent.ac.uk/careers/sk/top-ten-skills.htm>.

**Table 6**  
Intended Learning Outcomes for a Master Degree in Tanzania

Knowledge & Understanding	Practical Skills & Understanding	Communication Skills
<ul style="list-style-type: none"> <li>• A critical understanding of the principal theories, concepts and principles</li> <li>• Extensive, detailed and critical knowledge and understanding in one or more specializations</li> <li>• Critical awareness of the current issues in a discipline and one or more specializations</li> <li>• Knowledge that covers and integrates most of the principal areas, features, boundaries, terminologies, conventions of subject or discipline</li> <li>• Demonstrate mastery of the subject area</li> <li>• Plan and carry out research/ project work to internationally recognized standards demonstrated by the completion of substantiated research paper/dissertation</li> </ul>	<ul style="list-style-type: none"> <li>• Deal with complex issues both systematically and creatively</li> <li>• Make sound judgment in the context of completed data and clearly communicate conclusions to specialists and non-specialists audiences</li> <li>• Continue to advance knowledge and develop new transferrable skills to a high level</li> <li>• Independent learning ability required for continuing professional development</li> </ul>	<ul style="list-style-type: none"> <li>• Effective communicate of ideas, problems and solutions to both specialists and non-specialists audiences;</li> <li>• Communicate with professional level peers, senior colleagues and specialists</li> <li>• Use a range of IT applications to support and enhance work</li> <li>• Interpret, use and evaluate a wide range of numerical and graphical data to set and achieve goals</li> </ul>

Source: Adapted from Tanzania Commission for Universities, *Tanzania National Qualifications Framework*.

areas) are largely involved in teaching large classes, and curriculum design and teaching and learning resources are inadequate due to inadequate financial resources? This is a paradox and a challenge of incorporating the Tuning approach in curriculum design in Tanzania. Table 6 below summarizes intended learning outcomes for university level master degree, which do not substantially differ from the ILOs outlined for the Bachelor degree.

The above ILOs for master’s degree also lack specificity and cannot be easily translated into a particular measurable competence or skill expected of a graduate master degree holder. The bachelor and master degree ILOs need revision within the framework identified by graduate employers.

Although the majority of public and very few private universities in Tanzania offer doctorates by theses only;<sup>36</sup> the TzQF has prescribed ILOs for university level doctorate degree summarized in Table 7. Completion of a doctorate by thesis in Tanzania universities may take up to seven years, rendering the ILOs meaningless or obsolete. Some of the ILOs stated for the doctorate degree may not be applicable because the degree is mainly offered through thesis without coursework through which some of the ILOs could be easily measured. Although the PhD ILOs have existed for the past six years, they are not largely implemented in universities. Universities offering taught PhD programs continue to offer doctorates through lectures (some of these taught by recent PhD graduates without experience because of shortage of professors). Consequently, universities continue to produce PhD graduates without requisite competencies and skills required. Unlike ILOs for bachelor and master degrees, ILOs for doctorate degree are derived from four generic competencies. Despite the addition of the fourth generic competence, the PhD ILOs do not significantly differ from bachelor and master degrees.

In principle, a framework for curriculum design in higher education to enhance graduates' competences and enable them compete in the labor market in Tanzania exists as prescribed by the Tanzania Commission for Universities in the Tanzania Qualifications Framework. However, this framework is not effectively applied by curriculum designers due to lack of clear understanding and training in the application of the framework. Most of the ILOs for bachelor and master degrees are vague and poorly formulated and do not address competencies and skills identified by employers as most important. A thorough revision of the TzQF and its prescribed ILOs by Tuning experts is highly needed. Training of the university lecturers in the application of TzQF in curriculum development/course design is required as one the way forward to empower course designers in universities apply Tuning principles in course design. Furthermore, training of Tanzania university lecturers in curriculum development and designing of expected learning outcomes is urgently needed (as way forward) because the majority of university lecturers except those teaching education courses have no background in pedagogy. This training is in order and critical for application of Tuning principles in curriculum design because in the Tanzanian context curricular development in universities begins at the individual level. Individual lecturers in respective departments and academic units design courses using modular system and on the basis of semester system for a particular degree program, e.g. Bachelor of Education in

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<sup>36</sup> Very few universities such as the University of Dar es Salaam have recently introduced taught PhD programs in some disciplines, e.g. economics, education, and political science.

**Table 7**  
Intended Learning Outcomes for Doctoral Degree Prescribed by TCU

Knowledge & Understanding	Practical Skills & Understanding	Communication Skills	Autonomy, Accountability & Teamwork
<ul style="list-style-type: none"> <li>• A critical understanding of the principles and theories</li> <li>• Extensive, detailed and critical knowledge and understanding in one or more specializations</li> <li>• Critical awareness of the current issues in a subject or and one or more specializations</li> <li>• Knowledge that covers and integrates most of the principles, terminologies and conventions of a discipline.</li> <li>• Demonstrate a mastery of the subject or discipline</li> <li>• Plan and carry out research work to internationally recognized standards demonstrated by the completion of a substantial research paper/dissertation</li> </ul>	<ul style="list-style-type: none"> <li>• Deal with complex issues systematically and creatively</li> <li>• Make sound judgments in the absence of completed data and clearly communicate their conclusions to specialists and non-specialists</li> <li>• Continue to advance knowledge and develop new transferrable skills to a high level</li> <li>• Develop independent learning ability required for continued professional development</li> </ul>	<ul style="list-style-type: none"> <li>• Effectively communicate information, ideas, problems and solutions to both specialists and non-specialists</li> <li>• Use a wide variety of software to support and enhance work</li> <li>• Undertake critical evaluation of a wide range of numerical and graphical data</li> <li>• Use range of established technique to initiate and undertake critical analysis of information and propose solutions to problems arising from analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to initiate, create and take personal responsibility</li> <li>• Exercise autonomy and initiative in professional activities</li> <li>• Take significant managerial or supervisory responsibility in defined areas of work</li> <li>• Work in support of current professional issues in accordance with current professional ethical codes and practices</li> <li>• Demonstrate originality/creativity in the application of knowledge, understanding &amp; practice</li> </ul>

Source: Tanzania Commission for Universities, *National Qualifications Framework*.

Adult and Community Education. Individual courses form a degree program. A new degree program has to be approved by a department in which it is anchored. All new or revised degree programs have to be submitted to the University Senate<sup>37</sup> for approval and later submitted to the Tanzania Commission of Universities for review and vetting and approval.

In the following sub section an attempt is made to explain why higher education curricular reforms and new course design have not effectively worked to tackle graduate unemployment in Tanzania.

#### IV.3. *Higher Education curricular reforms and new course design in Tanzania: why they have not effectively worked to mitigate graduate unemployment*

The Tuning approach as explained earlier, is a world-wide accepted approach for reforming higher education and designing outcome-based degree programs. It is an international tool for re-designing and implementing outcome-based degree programs applied by more than 2,000 universities all over the world before it was introduced in Africa in 2010.<sup>38</sup> Public universities in Tanzania have introduced and implemented a number of curricular reforms and designed new courses/programs (commonly known as market-driven courses), whose impact on graduate employability appears largely insignificant. One of the major reasons for the apparently insignificant impact of curricular reforms and new course designs on graduates' unemployment and employability is that the reforms have been largely *market-responsive curricular* reforms undertaken in a larger framework of neo-liberal (market) reforms undertaken by the Government in other social sectors. Market-driven responsive curricular reforms in public universities in Africa are not necessarily focused on developing long-term, relevant competencies and skills among graduates because they are premised on privatization and commercialization of higher education as a private good. As Mamdani convincingly argues, market responsive curricular reforms in public universities inevitably lead to the market determination of curricular priorities<sup>39</sup> which might not necessarily

<sup>37</sup> In the context of the University of Dar es Salaam, the senate is the main academic body of the institution handling all academic matters of the University including examinations results, award of degrees and promotion of academic staff.

<sup>38</sup> Hahn and Teferra, "Tuning as Instrument of Systematic Higher Education Reform and Quality Enhancement: The African Experience," 127-163.

<sup>39</sup> See Mahamoud Mamdani, *Scholars in the marketplace: The dilemmas of the neo-liberal reforms at Makerere University, 1989-2005* (Dakar: CODESRIA, 2004).

focus on long-term graduates' competencies and skills. Market-responsive curricular reforms and resulting market-driven academic program addresses short-term labor market needs (short-term employability of graduates) and economy and do not necessarily support mission and vision of higher education institutions or address competences (through LOs) needed for the graduates to be successful on the long term basis in the future labor market. Graduates' employability through market-driven academic program can only be sustainable if designers of these programs take into consideration future labor market demands. The challenge, however, is that market-driven academic programs in African (public) universities are part of long-term economic survival strategy.

Ian<sup>40</sup> cited in Ogude et al (undated) cautions against reducing curriculum responsiveness to exclusive focus on responding to the labor market demands (economic responsiveness) and preparing students only for the world of work which mainly requires instrumental competencies. Moll further proposes a multi-faceted (eclectic) model of curricular responsiveness, reflecting long-term competencies, although the model does not cover all types of competencies advocated by Tuning, i.e. instrumental, interpersonal and systemic competencies advocated by Villa Sanchez and Poblete Ruiz.<sup>41</sup> Moll's model is composed of four (ideally) interrelated strata of curriculum responsiveness to be considered in curriculum reform and design in universities to achieve long-term competencies among graduates. Among the four strata proposed in the model, only one stratum focuses on learner-centered teaching/learning and assessments in line with Tuning approach. The components of the model are summarized below:

- Economic/policy responsiveness-response to the labor market demands for professions, careers and vocations (human resource needs of the economy) and government policy demands, at times at the expense of the core functions of universities, e.g. nurturing critical thinking among graduates. Economic responsiveness has been a major push for curricular reforms in many African universities.
- Institutional/cultural responsiveness-an institution responds to its own internal agenda, mission, institutional culture and vision and wants to change its status quo through curriculum reforms. Institutional responsiveness to curriculum reforms also incorporates cultural

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<sup>40</sup> Ian Moll, "Curriculum Responsiveness: The Anatomy of a Concept," in *Curriculum Responsiveness: Case Study of Higher Education*, ed. Hanlie Griesel (Pretoria: South African Universities Vice Chancellors' Association (SAUVCA), 1-26. (Undated).

<sup>41</sup> Villa Sanchez and Poblete Ruiz. "Competence-based learning."

responsiveness of a curriculum by including some relevant cultural elements in the curriculum to take care of cultural diversity of students and society. Institutional responsiveness to curriculum reforms has been rare in African universities but documentary evidence show that the University of Dar es Salaam has attempted to implement institutional responsiveness through its *Institutional Transformation Program*.<sup>42</sup> Cultural diversity as a push for curriculum has not a concern of many African universities because of cultural homogeneity, with the exception of South Africa.

- Disciplinary responsiveness-referring to responsiveness of the curriculum to demands of its knowledge discipline through production of new knowledge through research by university teachers and researchers. “The curriculum is responsive to the nature of the discipline by ensuring a close coupling between the way knowledge is produced and the way in which students are educated and trained in the discipline area”,<sup>43</sup> and
- Pedagogical/learning responsiveness (responsiveness of the curriculum to the learner)-in this type of curriculum responsiveness “curricular are designed and delivered in a manner that is pedagogically sensitive to students from diverse educational and cultural backgrounds”.<sup>44</sup> Pedagogical and learning responsiveness adopts a learner-centered teaching/learning and assessments which takes care of the needs of the learner in a higher learning institution. Responsiveness to learning “demands that university academic staff concentrate not only on *what* is taught in a course, but also on *how* a course is taught”.<sup>45</sup> Although pedagogical responsiveness is an important component of competence-based teaching and learning, documentary and research evidence reveal that in the majority of African universities, because of the paucity of teaching and learning resources, teaching remain largely teacher-centered.<sup>46</sup>

<sup>42</sup> In 2000, the University of Dar es Salaam launched the Institutional Transformation Program (ITP) designed to bring about overall institutional overhaul under a 15 year corporate strategic plan.

<sup>43</sup> Moll, *Curriculum Responsiveness*, 6.

<sup>44</sup> Nthabiseng Ogude, Heather Nel and Martin Oosthuizen, “The Challenge of Curriculum Responsiveness in South African Higher Education,” 13 (undated).

<sup>45</sup> Moll, *Curriculum Responsiveness*, 14.

<sup>46</sup> For example, a recent (2016) report on the teaching and learning processes at the University of Dar es Salaam revealed that the dominant teaching approach was teacher-centered. See UDSM (2016). *Report on the monitoring of teaching and learning processes in semester II 2015/2016*.



#### IV.4. *Curricular reforms at the University of Dar es Salaam and the role of the Tuning Methodology: the case of market-driven courses*

In Tanzania, the University of Dar es Salaam has been a champion of economic responsiveness curricular reforms through the introduction of several market-driven degree programs and short courses since the early 1990s---mainly as a survival strategy not necessarily related to enhancing graduates' competencies and skills to enable them compete in the labor market or enhancing their employability. The introduction of market driven courses has taken place in tandem with establishment of new colleges and schools and elevating faculties into schools and colleges. Documentary evidence shows that between 1990 and 2014/15 academic year, the University of Dar es Salaam had introduced more than fifty (50) new programs, all market-driven. The fundamental question is whether these new programs designed without applying Tuning approach focus on a combination of generic competencies (instrumental, interpersonal, and systemic) required for a knowledge worker and meet employers' expectations of a graduate expressed in Table 5 and in other surveys presented in this paper. Some new programs have narrow offering focusing on the newly discovered natural resources in Tanzania, such as oil and gas. The question is what will happen to these programs and to graduates when the natural resources for which these programs address extinct. Although no large scale empirical study has been conducted to establish whether or not these market-driven degree programs produce competent/skilled graduates required by the labor market conforming to the employers' expectations, observation shows that they are not, given the fact that they have not been designed using the Tuning approach and because of other reasons which will be mentioned shortly. Whether these new courses will produce highly competent graduates with skill match and capable of self-employment remain an open question. However, we can at this point tentatively argue that because competence-based teaching and learning (basic principle of Tuning approach) have not been adopted at the University of Dar es Salaam, these new courses designed as a result of economic responsiveness are unlikely to produce highly competent and skilled graduates as per employers' expectations.

In Tanzania and in other African countries which have embraced neo-liberal economic policies and liberalized the higher education sector to allow private providers, economic responsiveness has been a dominant approach to curricular reforms and design applied by both public and private universities. However, available evidence show that the approach has not enabled universities to produce graduates with requisite competencies and skills required by the labor market, hence graduate unemployment. An eclectic

approach to curricular reforms i.e. a combination of other approaches mentioned earlier and the injection of the Tuning principles would be useful to enable African universities deliver competence and skill-based education to students. In the following section findings are presented and discussed.

## V. Findings and discussion

### V.1. *Academic staff's general understanding of Tuning Approach and its significance in curricular reforms and course design in universities*

All twenty-one (21) members of the academic staff who volunteered to participate in the study (about 25.4% of the total academic staff in the School of Education) acknowledged to have been engaged in course design (at undergraduate and graduate levels) by indirectly using Tuning approach related criteria such as: competence based learning outcomes, skill-based learning outcomes and knowledge-based learning outcomes. Twelve or 57% of the total respondents were aware of the Tuning approach and its significance in curricular reform and course design in universities to make university education more competence and skill based. Nine members only (43%) claimed being unaware of the Approach, but further observed that they were sure they have been applying Tuning approach in curricular design without knowing it.

Related to the Tuning approach are the concepts of outcome-based education (OBE) through outcome-based teaching and learning (OBTL) and competence-based teaching and learning in higher education. All academic staff respondents in our sample were familiar with the two concepts above and 17 (81%) of the academic staff observed that both OBE and OBTL approaches to curricular design were applied in course design at the University of Dar es Salaam. Only 4 (29%) of the respondents observed that OBE and OBTL principles were inapplicable at the UDSM because of the following factors:

- Both OBE and OBTL principles are unknown or not well understood by many lecturers in public universities in Tanzania
- Inadequate resources and large classes and generally poor teaching and learning conditions make it difficult to apply OBE/OBTL. This factor is related to my earlier observation that inadequate teaching and learning resources were one of the limiting factors in applying Tuning approach and competence-based teaching and learning in our universities and

- Lecturers and students were not ready to change their mind sets to accept OBE/OBTL. Change of mindsets particularly by lecturers to accept OBE/OBTL as a strategy of making university education more competence –based may perhaps be a result of lack of training in the application of the concepts in curriculum design in universities.

Thirteen members of the academic staff (sixty-two percent) were of the views that if Tuning approach is applied in reforming Tanzania higher education system and in designing new academic programs in universities it can enhance graduates competencies and skills for employability in the labor market. Academic staff's views on the Tuning approach and its capacity to enhance graduates competencies and make university education competence-based are summarized in Box 1 below. Responses can be summarized in five themes/categories related to what Tuning can do and the conditions for effective functioning of Tuning: improvement of students' academic performance, enhancement of students' employability, capacity building in the application of Tuning approach for all academic staff in universities; limited scope of the approach; more investment in teaching and learning resources to support the approach and a call for paradigm shift and re-orientation of Tanzanian universities to accept Tuning approach.

### Box 1

Academic staff views on the application of Tuning approach to enhance students' competencies and skills

#### *Enhancement of Students' Competencies & Employability*

- ✓ It has great potentiality for enhancing graduates' employability because it focuses on competencies and skills
- ✓ It recognizes both generic and specific competencies necessary for employment

#### *Improvement of Students Academic Performance*

- ✓ The approach will improve students' academic performance as it adopts outcome based teaching and learning

#### *Limited Scope of the Approach*

"Tuning approach is good, except that it may tend to focus purely on labor market signals rather than on broader development issues required of higher education"

- ✓ It should also focus on self-employment skills
- ✓ Should be carefully applied with consideration to cultural factors

*Capacity Building*

“Capacity building through training in Tuning methodology should be provided to all academic staff in all universities in Tanzania.”

- ✓ Capacity building is required to enable the University of Dar es Salaam’s academic staff apply it in course design and curricular reforms

*Investment of Adequate Financial Resources*

- ✓ Financial and human resources are inadequate to make Tuning approach effectively function in universities
  - ✓ Need to invest more resources in universities to support the approach
- “Teaching and learning conditions in our universities are poor, may hinder effective use of the Tuning approach.”

*Paradigm Shift*

- ✓ Paradigm shift from theory to competence-based curricular is needed
- “There is a need to change teacher-centered approach to accommodate Tuning approach in our universities.”
- ✓ Re-orientation of universities to accept Tuning is needed
  - Capacity building through training in Tuning methodology is required to enable the University of Dar es Salaam academic staff apply it in course design and curricular reform
  - The approach will improve students’ academic performance and competencies and will change the current public image that university graduates are unable to compete in the labor market
  - It is a good approach for enhancing graduates’ competencies in Tanzania, but training on the approach to all academic staff in all universities in the country should be provided

What generally comes outstandingly from the above views is that Tuning approach to curricular reform and course design in higher education has a great potential of enhancing graduates’ competencies and consequently employability in Tanzania. But, in the Tanzania context there are two possible limitations to the application of the approach in curriculum implementation: poor teaching and learning conditions and inadequate resources in universities. Inadequate resources and poor teaching and learning conditions, manifested inter alia, by larger classes, shortage of academic staff (in senior academic ranks) and inadequate funding of public universities makes it difficult to effectively apply the Tuning approach in our universities to deliver competence-based university education. Inadequate resources and poor teaching and learning conditions

have also been cited in literature as limitations to applying outcome-based teaching and learning in universities.

Another limitation to the application of Tuning approach through outcome-based teaching and learning is the entrenched teacher centered approach to university teaching. Seventy-one percent (71%) of the academic staff in our sample acknowledged that teacher-centered approach was currently dominant in university teaching and contributed to the graduates' lack of competencies and skills upon graduation. This view is supported by the earlier report on teaching and learning processes at the University of Dar es Salaam. In this report, authored by the Quality Assurance Bureau of the University of Dar es Salaam, it is observed that the dominant approach to teaching at the UDSM was teacher-centered.<sup>47</sup> In teacher centered approach, lecturers make all decisions concerning course outlines/syllabus, teaching methods, and different forms of assessments through various assignment and tests, and generally the approach does not allow students to influence their own learning in a university setting. This approach, according to Duckworth, cited in Ahmed<sup>48</sup> prevents students' educational growth, which has implication on development of competencies and skills. From another perspective, as observed earlier, given the fact the bulk of teaching in universities is conducted by junior members of the academic staff whose competencies and skills needs further enhancement, teacher-centered approach to teaching in universities implies that less competencies, skills and knowledge are passed on to students.

On the other hand, adopting student-centered learning approach in university teaching (deeply rooted in the constructivist approach to teaching and learning<sup>49</sup>) is almost impossible in our universities due the challenges mentioned earlier, i.e. larger classes, poor teaching and learning conditions and inadequate resources (human and financial).

## V.2. *Academic staff's views on graduates' unemployment in Tanzania and relationship to competence-based university education*

A questionnaire composed of both closed and open-ended items was distributed to 21 members of the academic staff in the School of Education to

<sup>47</sup> University of Dar es Salaam (UDSM), *Report on the Monitoring of Teaching and Learning Processes in Semester II, 2015/16* (UDSM, 2016).

<sup>48</sup> Ahmed Khaled Ahmed, "Teacher-Centered Teaching versus Learner-Centered Teaching Style," *The Journal of Global Business Management* 9, no. 1 (2013): 22-34.

<sup>49</sup> Constructivist approach to teaching and learning postulates that learning is an active and contextualized process where learners construct knowledge rather than acquire it.

solicit their views on whether or not they agreed with the public outcry that university graduates in Tanzania lack employable skills because the current university education is not competence-based and recommend strategies to make university education more competence and skill based. One of the questionnaire items also requested them to express their views on the popular claim among employers that university education in Tanzania is theoretical and un-aligned to the labor market needs (hence graduate unemployment) and suggest ways in which university education can be aligned to the labor market. Findings are summarized below.

### V.2.1. Graduate unemployment in Tanzania and strategies of making university education competence and skill-based

Ten members of the academic staff (48%) agreed with the view that Tanzania university graduates lack employable skills because university education is not competence-based; while 52% disagreed. Some of the respondents argued that universities are not polytechnics designed to solely equip students with competencies and skills and that universities are supposed to produce thinkers, not technicians. Although the above argument may reflect an old thinking of a “traditional elite university” designed to produce “thinkers,” decision makers and rulers, critical thinking has been mentioned as one of the major graduates’ competencies appearing in many major surveys of what employers want from university graduates. However, the traditional “elite university” does no longer exist in contemporary Africa. It has been replaced by the entrepreneurial university long time ago when public universities were compelled to seek alternative means of generating extra income to mitigate inadequate government budgetary allocations.

The entrepreneurial university responds to the labor market and to the society/community and learners’ needs. The entrepreneurial university is an “engaged university” interacting with the society and mobilizing human and intellectual resources to directly tackle some of its problems, such as poverty and produces knowledge that has real impact on society and its people.”<sup>50</sup> Recommendations of making university education more competence-based are summarized in box 2 below, revolve around the following themes: review of university curricular to emphasize graduates’ competencies and skills, capacity building for university lecturers to design competence-based curriculum and use of Tuning approach in curriculum design, change of student assessment and

<sup>50</sup> See David Watson et al., *The Engaged University. International Perspectives on Civic Engagement* (London:: Routledge, 2011).

evaluation methods, Government to provide adequate resources, and change of teaching and learning methodology. The dominant strategy recommended by almost all academic staff is review of university curricular to emphasize on students' competencies and skills. Issues of capacity building for lecturers to enable them design competence-based degree programs and investment of adequate financial resources in university education expressed earlier by same lecturers regarding the application of Tuning approach to enhance students' competencies were also recommended as strategies of making university education in Tanzania more competence-based. Box 2 below summarizes strategies recommended to make university education more competence-based to enhance graduates employability in the Tanzanian context.

### Box 2

Academic staff views on strategies to make university education competence-based

*Review university curricular to emphasize on competencies and practical skills more than theories*

Ensure that courses as well as the teaching and learning processes incorporates Bloom's Taxonomy of Educational Objectives

- ✓ Develop courses considering student needs

*Capacity building for university lecturers*

- ✓ Train university lecturers to design competence-based and practical degree programs

"Many university professors are not well versed in competence-based curriculum although they use some terms such as 'intended learning outcomes' and 'competencies in their course outlines'"

- ✓ Provide regular professional development courses for lecturers

*Change assessment method*

- ✓ Introduce practical examinations

*Investment of adequate resources in university education*

- ✓ Government should provide adequate resources to facilitate provision of quality higher education

*Change teaching and learning methodology, adopt competence-based teaching and learning*

- ✓ Use different pedagogies that emphasize different skills and competencies
- ✓ Adopt small classes, large classes affect teaching, as a result we rely on teacher-centered method which does not impart skills

## V.2.2. University education alignment to the labor market needs and graduate unemployment

Sixty-seven percent of the faculty supported the argument that university education in Tanzania was theoretical and un-aligned with the labor market needs, and hence graduate unemployment; thirty-three percent disagreed. Major recommendations made to align university education to the labor market needs in the Tanzanian context are:

- a) Involve potential employers of university graduates and labor market experts in university curriculum design through comprehensive needs assessment of competencies and skills (dominant recommendation). The logic in this recommendation is that potential employers will provide inputs on competencies and skills required by the labor market.
- b) Design relevant, competence-based curriculum (also dominant recommendation)
- c) Regularly assess the labor market needs and reform university curricular through Tuning approach
- d) Adopt competence based teaching and learning
- e) Conduct regular tracer studies to get feedback from employers and graduate students

All of the above recommendations are feasible in the Tanzanian context, provided public universities take the initiative. Anecdotal evidence also show that employers, on their part, are willing to work with universities in matters related to designing competence based curricular aligned with the labor market,<sup>51</sup> but apparently universities still function in the 'ivory tower mode'. In this mode, universities do not adequately interface with potential employers and communities. The last recommendation, that is, conduct of regular comprehensive tracer studies also known as graduate surveys, has been one the key strategies used by higher education institutions world-wide to obtain direct feedback from graduate students and employers on the relevance to the job and

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<sup>51</sup> For example, on February 23<sup>rd</sup>, 2017, the Tanzania Private Sector Foundation (TPSF) organized a workshop on internship training program and urged universities to establish links with businesses to produce graduates needed in the labor market. The TPSF also urged universities to equip students with practical skills and competencies rather than theories. See <http://www.thecitizen.co.tz/News/Business/Graduates...skills-wanting...> accessed on August 10, 2017. TPSF is an apex organization of all private sector companies and organizations.



marketability of higher education programs.<sup>52</sup> Furthermore, according to Schomburg, graduates tracer studies further provide an important feedback for curriculum review and development in terms of competencies and skills required by the labor market and other aspects related to study conditions in higher education institutions.<sup>53</sup> Unfortunately, tracer studies (despite their importance for the introduction of new programs and review of old ones) have been abandoned by many Tanzanian universities because of inadequate financial resources. At the University of Dar es Salaam, the last official tracer study was conducted in 2001, and was limited to the Bachelor of Commerce graduates in the then Faculty of Commerce and Management.<sup>54</sup>

### V.3. *Academic staff views on the market-driven degree programs at the University of Dar es Salaam*

Through an open-ended item twenty-one faculty were asked to give their general views on market-driven academic programs introduced at the University of Dar es Salaam in the late 1980s in terms of being competence-based, their relevance to the national development and their potentiality to enhance graduates' employability in the competitive labor market.

#### V.3.1. Competencies and skills

All but two respondents (90%) observed that the market-driven courses introduced in different academic units at the University of Dar es Salaam and generally in other public universities in Tanzania were not competent and skill-based, although some are designed to meet specific labor market needs of the targeted clients for a short term. The major reasons given for the above respondents' observation are:

- They are introduced without conducting a comprehensive needs assessment of the labor in terms of skills and competencies required;

<sup>52</sup> The National Commission for Higher Education (NCHE) reports that regular graduate surveys of Makerere University graduates has helped the University improve its curricular through reviews. See NCHE report of 2015, among others,

<sup>53</sup> See Harald Schomburg, *Carrying Out Tracer Studies. Guide to Anticipating and Matching Skills and Jobs* (Luxembourg: European Union, 2016).

<sup>54</sup> Erasmus. S. Kaijage "Knowledge and skills of the Bachelor of Commerce Graduates of the Faculty of Commerce and Management of the University of Dar es Salaam in the job market," 2001 <http://rc.aau.org/files/kaijage.pdf>, accessed August 10, 2017

they are therefore out of touch with the labor market requirements for skills,

- The lecturers who designs these courses are not trained in competence-based curriculum design and application of competence-based teaching and learning,
- The courses are designed with profit motives for academic units offering them, not for making graduates competent and skilled on the long-term basis,
- The courses are offered in poor infrastructure (poor teaching and learning conditions), which cannot support competence-based teaching and learning,
- Courses do not incorporate entrepreneurial and self-employment skills in their curricular.
- Resources and teaching and learning conditions in universities make it difficult to apply competence-based teaching and learning to make these courses competence-based.

The introduction of market-driven academic programs in African public universities is a part of market-responsiveness of curriculum and one of the strategies for the marketization of universities, which unfortunately does not address key issues of long-term competencies and skills through expected learning outcomes. Despite massive marketization of African universities, graduate unemployment is still a challenge.

### V.3.2. Relevance to national development

The question of relevance sought to relate market-driven courses developed in universities and their contribution and relationship to the long-term national development agenda and goals. Only five faculty members (24%) thought the courses were relevant to the national development but with caution that they should be regularly reviewed to meet current development priorities and strategic development plans; while seventeen respondents (76%) thought market-driven courses are irrelevant to the broader national development agenda because:

1. Majority of courses do not focus on the broader national development needs, but focus on short-term labor market needs which saturate with time (dominant factor)

2. Courses tend to be motivated by an urge to generate extra income for the cash-starved universities rather than imparting critical competencies necessary for national development,
3. They address sectoral labor market demands which saturate with time,
4. The contents, teaching and learning methodologies in market-driven courses are not designed to contribute to national development needs; and
5. The courses are not aligned to nation' strategic needs and plans.

The issue of relevance of market-driven courses introduced in public universities in Africa as a strategy of marketization of universities has been also raised by Munene.<sup>55</sup> Munene citing Dill<sup>56</sup> argues that reforms that have taken place in African public universities have challenged the notion of a public university as a public good and key instrument of national development. He argues that public universities in Africa are now agents of the markets or they are themselves markets. This is a sound argument given the entrepreneurial nature of African universities.

#### IV.3.3. Enhancement of graduates' employability

Eleven respondents (52.4%) of the respondents reported that market-driven courses introduced in public and private universities in Tanzania cannot or do very little to add to the enhancement graduates' employability; while ten (47.6%) another had a view that these courses enhances graduates' employability.

Members of the academic staff who thought market-driven courses do very little to enhance graduates' employability cited the following hindering factors:

- Most of the courses have been introduced without comprehensive labor market needs assessment (this was a popular view)
- They are not competence and skill based

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<sup>55</sup> See Ishmael Munene, *Profits and pragmatism. The commercial lives of market universities in Kenya and Uganda*. (SAGE Open, October-December 2015): 1-14, doi: 10.1177/2158244015612519.

<sup>56</sup> David Dill, "Allowing markets to rule: The case of the United States of America," *Higher Education Quarterly* 57 (2003), 136-157.

- They are designed on ad hoc basis
- Teaching and learning in these courses is teacher-centered
- The courses are not focused on enhancing ability for self-employment and
- They are irrelevant

Faculty who thought that market-driven courses enhance graduates employability observed (with caveat)<sup>57</sup> that the courses:

- Target certain skills wanted by employers (most popular view)
- Target current labor market needs, and
- Incorporate a “skilling element” for necessary employment or self-employment

#### V.3.3.1. *Generic competencies related to employability most wanted by employers from graduates: faculty and graduate student views*

Related to graduates’ employability is the skills or generic competencies (in the context of Tuning approach) most wanted by employers. Using competencies adopted from the European Commission, 2010. *Employers perception of graduate employability*, NACE’s’2016 *Job outlook survey* and *Graduates Attributes. A Survey of South African Graduates from the Perspectives of Employers*, this study also sought to find out how faculty members and graduate students ranked fourteen competencies used in the two reports cited above. Faculty (21) and students (89) were asked to rank in order of priority the following competencies:<sup>58</sup>

1. Ability to work in team structure (group) (C1)
2. Ability to make decisions (C2)
3. Ability to solve (organizational) problems (C3)

<sup>57</sup> The caveat expressed by respondents in the above group is that although market-driven courses can enhance graduates’ employability they focus on short-term labor market needs which saturates with time, and therefore, they do not focus on sustainable labor market skills.

<sup>58</sup> The choice of these competencies has been influenced by the fact they appear to be universal cited in many major surveys of what employers want from university graduates. They are also comparable with List of Generic Competencies Identified in Tuning Africa Project.

4. Ability to communicate verbally (C4)
5. Technical knowledge related to the job (Technical skills) (C5)
6. Ability to plan, organize and prioritize work (C6)
7. Ability to obtain and process information/data (C7)
8. Quantitative skills (ability to analyze quantitative data) (C8)
9. Proficiency with computers' software programs (C9)
10. Ability to write technical/professional reports (C10)
11. Adaptability (Flexibility) (C11)
12. Leadership skills (C12)
13. Time management (C13)
14. Critical thinking and analysis (C14)

#### 3.3.1.1. Faculty ranking of important competencies related to graduates' employability

Analysis of faculty rank order of the above competencies (calculated from average rankings) is summarized in Table 8 below. Faculty ranked critical analysis and thinking as the most important graduate competence which should be valued by employers, followed by technical knowledge related to the job or technical skills. Surprisingly, proficiency with computer software programs was ranked as of least importance by faculty, although computer skills are necessary for faculty' to effectively function in this era of globalization and knowledge economy.

**Table 8**  
Faculty Rank Ordering of Competencies  
Most Wanted from Graduates by Employers

Competence	Average Ranking	Rank Order
Critical thinking & analysis	3.33	1
Technical knowledge related to the job (Technical skills)	4.47	2
Ability to plan, organize & prioritize work	5.38	3
Ability to solve (organizational) problems	5.47	4
Ability to make decisions (Decision making)	6.19	5
Ability to communicate verbally	7.14	6

Competence	Average Ranking	Rank Order
Ability to work in a team structure	7.76	7
Quantitative skills (ability to analyze quantitative data)	7.80	8
Ability to obtain & process information	7.85	9
Time management	8.19	10
Ability to write technical reports	9.28	11
Leadership skills	9.76	12
Adaptability (Flexibility)	9.80	13
Proficiency with computer software programs	10.0	14

### 3.3.1.2. Graduates’ students ranking of important competencies related to graduates’ employability

Students’ ranking of important competencies summarized in Table 9 also shows that critical thinking and analysis was ranked as most important competence/skill, followed by technical knowledge (technical skills) related to the job and ability to analyze quantitative data was ranked as least important. This is not surprising given the fact the majority of students in social sciences, education and humanities in African universities, because of their poor background in Mathematics in secondary schools, dislike quantitative related courses. However, possessing quantitative skills is generally an important competence required by employers of graduate students.

**Table 9**  
 Students Rank Ordering of Competencies  
 Most Wanted from Graduates by Employers

Competence	Weighted Average Ranking	Rank
Critical thinking & analysis	5.0	1
Technical knowledge related to the job	5.34	2
Ability to make decisions	5.87	3

Competence	Weighted Average Ranking	Rank
Ability to work in a team structure	6.40	4
Ability to solve organizational problems	6.67	5
Ability to communicate verbally	6.79	6
Time management	7.09	7
Ability to plan, organize & prioritize work	7.19	8
Leadership skills	8.14	9
Ability to obtain & process information	8.56	10
Ability to write technical reports	8.73	11
Proficiency with computer software programs	8.97	12
Adaptability (Flexibility)	9.35	13
Quantitative skills (ability to analyze quantitative data)	9.66	14

Tables 9 and 10 show that both faculty and students have similarly ranked the following competencies:

- Critical thinking and analysis (ranked 1)
- Technical knowledge related to the job (ranked 2)
- Ability to communicate (ranked 6)
- Ability to write technical reports (11)
- Adaptability (13)

It is interesting to note that both groups ranked ‘Critical thinking and analysis’ as the most important competence for university graduates, followed by ‘technical knowledge/skills related to the job. However, due to dominance of teacher-centered teaching approach in our universities and other challenges facing universities, particularly overcrowded lecture rooms, it is almost impossible to nurture critical thinking and analysis among students. It is also a challenge for students to acquire technical knowledge/skills in overcrowded classrooms and through lectures. Table 10 compares and summarizes faculty and students’ average and actual rankings of fourteen competencies most wanted by employers from graduates presented in Tables 8 and 9.

**Table 10**  
 Comparison of Faculty and Students' Weighted Average Rankings of Most Important Graduates' Competencies Wanted by Employers

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14
<b>Weighted Average Ranking</b>														
Faculty	7.76	6.19	5.47	7.14	4.47	5.38	7.85	7.80	10.0	9.28	9.80	9.76	8.19	3.33
Students	6.40	5.87	6.67	6.79	5.34	7.19	8.56	9.66	8.97	8.73	9.35	8.14	7.09	5.0
<b>Ranking</b>														
Faculty	7	5	4	6	2	3	9	8	14	11	13	12	10	1
Students	4	3	5	6	2	8	10	14	12	11	13	9	7	1

Key: C = Competence (See p. 26).

V.4. *Students' views on graduate unemployment, application of tuning approach and competence-based teaching and learning to enhance graduates' employability in Tanzania*

V.4.1. Causes of graduates' unemployment and under-employment and what universities should do

All 89 graduate students (100%) in our sample admitted that graduate unemployment and underemployment are serious problems in Tanzania. The major causes of the above problems (from students' perspectives) are summarized in Table 11. In order of priority major causes of graduate unemployment are:

- lack of competencies and skills required by the labor market,
- irrelevant curricular,
- expansion of higher education without concomitant infrastructure and resources,
- teaching and learning approaches which are not competence-based,
- courses and programs offered by universities are not competence-based, and



- lecturers’ lack of knowledge in designing competence/outcome-based academic programs.

About six percent of the respondents thought that all the above factors were responsible for graduates’ unemployment in Tanzania.

Some of the reasons for graduate unemployment identified by students have also been mentioned by faculty, e.g. lack of competencies and skills required by the labor market, irrelevant curricular and lecturers’ lack of knowledge in designing competence based and outcome-based courses. It is interesting to note that students brought out the issue of expansion of higher education and its attendant low quality university education as one of the factors of graduate unemployment in Tanzania, although they are major beneficiaries of university education expansion. It is a fact that higher education in Tanzania has dramatically expanded in terms of student enrollment and number of universities without expansion of educational infrastructure and increase of financial and human resources.

**Table 11**  
Major Causes of Graduate Unemployment in Tanzania:  
Graduate Students’ Perspectives  
N=89

Cause	Number of Respondents	%
Students are not equipped with competencies & skills required by the job market	28	31.46
Irrelevant curricular to the job market	25	28.08
Expansion of higher education which lowers the quality of university education	14	15.73
Teaching & learning approaches are not competence-based/outcome-based	7	7.86
Courses/programs offered by university are not competence-based	6	6.74
Lecturers lack knowledge of designing competence/outcome based programs	5	5.61
All of the above	4	4.49
<b>Total</b>	<b>89</b>	<b>100.0</b>

V.4.2. What universities should do to mitigate graduate unemployment and best solution to graduate unemployment implementable by universities in Tanzania

In the context of the above identified major causes of graduates’ unemployment, students recommended the following measures (apparently logically interrelated) as strategies for reducing graduate unemployment in Tanzania:

- design of competence-based university curriculum,
- design of relevant curricular to the labor market,
- inclusion of entrepreneurial/self-employment skills in curriculum,
- change of mode of student evaluation to focus on competencies, instead of examinations
- use of innovative teaching approaches (particularly adoption of competence-based teaching and learning approaches, and
- training of university lecturers in designing competence-based courses, See Table 12.

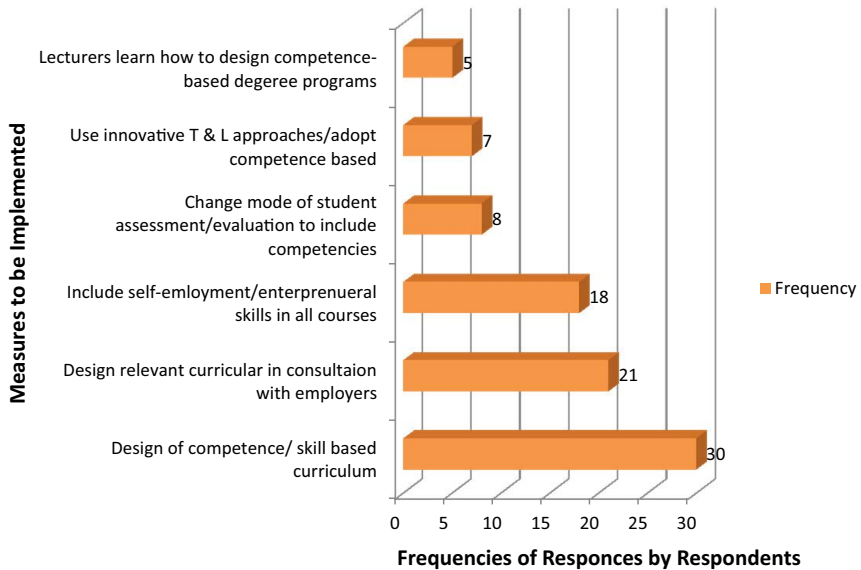
In the students’ opinion, the best solution to graduate unemployment was equipping students with more practical skills and competencies through university curriculum, this means changing the current university curricular to make it more competence-based.

**Table 12**

Measures to be Implemented by Universities to Reduce Graduate Unemployment N=89

Measure	Frequency	%
Design of competence/skill-based curriculum	30	34.0
Design relevant curricular to the labor market in consultation with employers	21	23.5
Include self-employment/entrepreneurial skills in all university courses	18	20.2
Change mode of student assessment/evaluation currently focused on examinations to include competencies	8	9.0

Measure	Frequency	%
Use innovative teaching and learning approaches/Adopt competence-based teaching and learning	7	7.6
Lecturers should be taught or learn how to design competence-based degree programs	5	5.6
<b>Total</b>	<b>89</b>	<b>100.0</b>



**Figure 3**

**Measures to be Implemented by Universities to Reduce Graduate Unemployment N=89**

Seventy graduate students (78.6%) supported a popular view that university education in Tanzania is theoretical. Furthermore, students supported another view from university graduates employers that graduates were not innovative, lacked necessary skills and competencies required by employers forcing some employers to employ foreign professionals from neighboring countries. Students recommended that universities should adopt competence-based curriculum and competence based teaching and learning to enhance graduates employability. All (100%) graduate students in our

sample had a view that the application of Tuning approach and competence-based teaching and learning in Tanzania universities can enhance university graduates competencies and skills and boost their employability.<sup>59</sup>

Findings generally show that:

- Members of the academic staff were aware of the Tuning approach and its significance in curricular reforms and course design in universities to make university education more competence/skill based to enhance graduates' employability. Faculty were also familiar with the two key concepts related to Tuning approach, i.e. outcome-based education (OBE) and outcome-based teaching and learning (OBTL) in universities, but further observed that lecturers and students (at the UDSM) were resistant to the application of OBE and OBTL. Apart from resistance to the application of OBE and OBTL, members of the academic staff observed that teacher-centered approach to teaching dominant in almost all universities in Tanzania was a constraint to adopting both OBE and OBTL in the Tuning context.
- All student respondents were also aware and positive of the Tuning approach and competence-based teaching and had view that if Tuning approach is applied in curriculum design and implementation can enhance university graduates employability.
- Forty-eight percent of the faculty in our sample also agreed that university graduates in Tanzania lack employable skills because current university education is not competence-based and is un-aligned to the labor market needs. They recommended adoption of competence based curriculum and training of lecturers in designing and implementing competence-based curriculum.

Almost all faculty respondents agreed that the majority of market-driven courses introduced at the University of Dar es Salaam and other universities were not competence-based because they are introduced without conducting comprehensive labor market needs assessment and also the lecturers who design market-driven courses are not trained in designing competence-based curriculum. On relevance to national development and contribution to enhancement of graduates' employability; the majority of the faculty

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<sup>59</sup> As explained earlier, the concept of Tuning and its importance in designing competence-based academic programs was earlier explained to students when they participated in the students' workload study. The concept of competence-based curricular was introduced/described in the students' questionnaire.

observed that most of the market-driven courses are irrelevant because they are designed with a profit motive behind and mostly designed on ad hoc basis to address short-term, sectoral labor market needs which saturates with time, but some can enhance graduates' employability because they target specific skills.

Both faculty and students similarly ranked five generic competencies as most important competencies preferred by employers from university graduates: critical thinking and analysis, technical knowledge/skills related to the job, ability to communicate verbally, ability to write technical reports, and adaptability (flexibility). These competencies have appeared in all major international surveys on what employers want from university graduates.

All respondents (faculty and students) acknowledged of the existence of graduate unemployment and underemployment in Tanzania. Both groups attributed the two problems to different factors, but they all pointed out common causes as: (1) lack of competencies and skills required by the labor market, (2) irrelevant curricular and (3) lecturers' lack of knowledge and skills in competence/outcome based degree courses and programs. Faculty and students, among other recommendations, strongly recommended review of university curricular to make it competence-based, design of competence/skill-based university curricular and application of Tuning approach in curricular design as strategies of mitigating graduates' unemployment. Students further recommended inclusion of self-employment or *entrepreneurial skills* in the university curriculum to further enhance graduates' competencies. Some student respondents suggested that undergraduate students should be psychologically prepared from the first year for self-employment through inclusion of entrepreneurship skills in university curriculum and should be made to understand that a university degree is not a guarantee for employment in the public or private sector. The recommendation to include entrepreneurship in university curriculum is plausible. Currently, entrepreneurship courses are offered by the University of Dar es Salaam Business School (UDBS) on short-term basis as a part of income-generating activities. Entrepreneurship could be made a general common course for all undergraduates as is the case with Development Perspectives course (formerly known as Development Studies)<sup>60</sup> and

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<sup>60</sup> Development Perspectives is a multi-disciplinary course focusing on Third World development issues and problems and issues offered by the Institute of Development Studies of the University of Dar es Salaam.

Communication Skills which are university-wide compulsory courses for all first year students in all disciplines.

## VI. Conclusions and recommendations (the way forward)

This paper generally explored faculty and graduate students' views on the possibility of applying Tuning approach and competence-based teaching and learning at the University of Dar es Salaam to enhance graduates competencies and skills for employability. Findings from both faculty and students involved in this study (although the sample is limited) generally points out to the fact that Tuning approach in course/curriculum design and implementation to produce competence-based curriculum and application of competence based teaching and learning in university teaching might be a panacea for increasing graduates' employability in Tanzania. However, the major challenge to the application of both Tuning approach and competence based teaching and learning (particularly at undergraduate level) is poor teaching and learning conditions (manifested by large classes, overcrowded classrooms, inadequate teaching and learning, and shortage of senior members of the academic staff). This challenge, among other consequences, compels most lecturers to resort to teacher-centered approach (lecture method) to teaching and examination based student evaluation. The above consequences are counterproductive to the application of competence-based teaching and learning and consequently the production of competent graduates capable of competing in the labor market. Students in this study have also expressed their concern about the current student assessment method largely based on examinations. This assessment method encourages cramming of materials and rote learning in order to pass examinations and secure a good grade. But as pointed out at the beginning, employers have shifted from using certificates (grades) for recruitment of graduates, they are currently "looking for capabilities beyond a list of subjects defined in certificates". The observation above underscores the importance of applying Tuning approach in higher education reforms and curriculum/course design in Tanzania.

In the context of the study findings and the discussion arising, I am recommending the following as a way forward:

- Capacity building of all academic staff in public and private universities in the application of Tuning approach in course design and general curriculum development, i.e. training of university lecturers to design competence/skill-based degree programs. This

recommendation has also been made by respondents (academic staff and graduate students) and is viewed as one of the solutions to graduate unemployment in Tanzania. The International Tuning Academy can facilitate this training through on-line courses if approached by a respective university. Training in the application of Tuning approach should be compulsory to all newly-recruited and experienced university lecturers. Emphasis of training should be on formulation of expected learning outcomes, curriculum design and program specification. Training is important given the fact that the majority of university lecturers have no background in educational theories. In the past, the University of Dar es Salaam had in place University Teaching and Learning Improvement Program (UTLIP) which meant to expose lecturers to the best methods of teaching which was discontinued due to inadequate financial resources to support the program. This program could be revived to become an integral part of training in the application of Tuning approach.

- Comprehensive review of university curricular to emphasize competencies and practical skills by using Tanzania Qualifications Framework as guideline. The implementation of this recommendation might require massive investment in teaching and learning resources, which might be a challenge. Despite the challenge of massive investment in teaching and learning resources, comprehensive review of university curricular to emphasize competencies and skills remain a viable solution to graduate unemployment in Tanzania.

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