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**Appendix 2**



**Oman Qualifications Framework Development Project**

**Qualifications Mapping Activity Report**

**Version Control**  
**Mapping Activity Report – August 2016**

<b>Version</b>	<b>Author</b>	<b>Date</b>	<b>File Name</b>	<b>Feedback from</b>	<b>Summary of changes</b>
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## ACRONYMS

ACCA	Association of Chartered Certified Accountants
AFTC	Air Force Technical College
BTEC	Business and Technology Education Council
CAT	Credit Accumulation Transfer
CoT	College of Technology
DGE	Diploma of General Education
EQF	European Qualifications Framework
GFP	General Foundation Programme
HE	Higher Education
HEAC	Higher Education Admission Centre
ICM	International Confederation of Midwives
IHS	Institute of Health Studies
MoD	Ministry of Defence
MoE	Ministry of Education
MoH	Ministry of Health
MoHE	Ministry of Higher Education
MoM	Ministry of Manpower
NQF	National Qualification Framework
OAAA	Oman Academic Accreditation Authority
OAQF	Oman Academic Qualifications Framework
OQF	Oman Qualifications Framework
OSNI	Oman Specialised Nursing Institute
PTI	Private Training Institution
QA	Quality Assurance
SAC	School Assessment Centre
TQ&D	Training Quality and Design Department (Air Force Technical College)
TVET	Technical and Vocational Education and Training
VTC	Vocational Training Centre

## GLOSSARY

Qualification Mapping Activity - Glossary of Terms	
Affiliated	Used to describe an organization that is officially connected with or controlled by another, usually larger, organization. <sup>1</sup>
Apprenticeship	The method in which trainees learn a craft or trade by hands-on experience while working with a skilled worker <sup>2</sup> .
Assessment	The term is synonymous with the concept of evaluation. Assessment relies on the measurement of multiple elements employing a variety of techniques. It also means the process for gathering and judging evidence in order to determine an individual's level of achievement against a standard or objective <sup>3</sup> .
Assessment Criteria	The standards of performance a learner is expected to demonstrate to determine that certain learning outcomes have been achieved <sup>4</sup> .
Awarding Body	An organisation that issues education or training certification following formal assessment, and includes organisations in Oman that certify professional competence such as Ministries, higher education institutions, technological and vocational education and training and professional bodies <sup>5</sup> .
Basic Education (In Oman)	General Education from Grade 1 to 10.
Capacity Building	Planned development of (or increase in) knowledge, output rate, management, skills, and other capabilities of an organization through acquisition, incentives, technology, and/or training. <sup>6</sup>
Certification	The formal acknowledgement of successful achievement of a defined set of learning outcomes <sup>7</sup> .
Continuous Assessment	A method or strategy of assessing the progress of learning of a learner on a continuous basis throughout a course of study as distinct from a final examination.
Course	The smallest component of a qualification for which a learner may enrol (see also Module and Unit). A course or collection of courses, if completed successfully, results in the award of a qualification <sup>8</sup> .
Credit	A quantitative measurement that represents the learning volume to

<sup>1</sup> <http://dictionary.cambridge.org/dictionary/english/affiliated>

<sup>2</sup> <http://www.businessdictionary.com/definition/apprenticeship.html>

<sup>3</sup> ANQAHE cited in OAAA Glossary

<sup>4</sup> Adapted from QFEmirates

<sup>5</sup> Adapted from OAAA Glossary

<sup>6</sup> <http://www.businessdictionary.com/definition/capacity-building.html>

<sup>7</sup> ANQAHE cited in OAAA Glossary

<sup>8</sup> Adapted from OAAA Glossary

	achieve the respective learning outcomes <sup>9</sup> . This includes all activities required to achieve the learning outcomes including independent learning.
◆ Specific Credit	Credit which is recognised as being directly relevant for entry or transfer to a particular qualification.
◆ Unspecified Credit	Credit that is awarded to the components of a qualification or program of learning. It is sometimes known as General Credit.
External Moderation	The external quality assurance procedure carried out by verifiers/reviewers (from outside the institution) to ensure the suitability and consistency of assessment.
Externality (In the context of External Moderation)	The principle that External Moderation is conducted by moderators who are independent and from outside an institution that is being externally moderated. (See Impartiality)
Higher Education	Post compulsory education at universities, colleges and similar educational establishments (especially to degree level) <sup>10</sup>
Impartiality (in the context of External Moderation)	To make an independent and unbiased judgement to ensure the suitability and consistency of assessment. (See Externality)
Internal Moderation	The education or training provider's internal quality assurance procedure to ensure the suitability and consistency of assessment.
Internationally Benchmarked (of the Oman Qualifications Framework)	A Qualifications Framework that has been compared to those in other countries for the purpose of establishing best practice and contextualization to the conditions in Oman.
Jurisdiction	A group of people (or organisation) with official responsibility for a particular area of activity. <sup>11</sup>
Labor market	The nominal market in which workers find paying work, employers find willing workers, and wage rates are determined. <sup>12</sup>
Learners with Special Needs	Those who require additional educational support.
Learning and Training Providers	Organisations across all education and training sectors in Oman that provide formal or non-formal learning
Learning Outcome	Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after completion of process of learning <sup>13</sup> .

<sup>9</sup> Adapted from Malaysian Qualifications Framework (MQF)

<sup>10</sup> OAAA Glossary

<sup>11</sup> <http://dictionary.cambridge.org/dictionary/english/authority>

<sup>12</sup> <http://www.businessdictionary.com/definition/labor-market.html>

<sup>13</sup>[http://www.uwo.ca/tsc/resources/selected\\_teaching\\_topics/curriculum\\_course\\_design/learning\\_outcomes.html](http://www.uwo.ca/tsc/resources/selected_teaching_topics/curriculum_course_design/learning_outcomes.html)

Level	An indicator of relative demand; complexity; depth of study; and learner autonomy <sup>14</sup> .
Level Descriptors	A set of progressive statements assigned to each level of the Oman Qualifications Framework, that describe the complexity of acquired learning in terms of knowledge, skills and competence <sup>15</sup> .
Licensing	An evaluative process leading to formal approval from the relevant Omani Ministry for institutions and their programs. Institutions include organisations such as universities, vocational training institutions and schools.
Listing Qualifications	The initial inclusion of a qualification on the Oman Qualifications Framework at a particular level following an evaluation of the qualification specification, learning outcomes and assessment <sup>16</sup> .
Module	The smallest component of a qualification for which a learner may enrol (see Course and Unit). A module or collection of modules, if completed successfully, results in the award of a qualification <sup>17</sup> .
Oman Qualifications Framework (OQF)	A comprehensive framework which includes all types of qualifications from all sectors of education and training in Oman.
Pathways	The vertical and/or horizontal routes learners take to navigate through their learning experience, by building on their knowledge and developing their skills, competencies and life experiences through education and training <sup>18</sup> .
Post Basic General Education (In Oman)	General Education from Grade 11 to 12
Program	The courses, modules or units that comprise a qualification.
Qualification	A certificate, diploma or a degree issued by an awarding body when, following established standards, the awarding body determines that a learner has achieved the learning outcomes related to a complete qualification <sup>19</sup> .
Qualification Type	Each broad category of qualification on the Oman Qualifications Framework.
Quality Assurance	The means through which a provider ensures and confirms that the conditions are in place for learners to achieve the standards set by it or another awarding body; the means by which an institution can guarantee with confidence and certainty, that the standards and quality of its education provision are being maintained and enhanced <sup>20</sup>

<sup>14</sup> 2001 Gosling and Moon

<sup>15</sup> Adapted from NQF Bahrain *Handbook for Institutions*

<sup>16</sup> See OAAA Paper `Towards a policy matrix for the governance, management and implementation of the Oman Qualifications Framework.

<sup>17</sup> Adapted from the OAAA Glossary (course)

<sup>18</sup> Adapted from NQF Bahrain *Handbook for Institutions*

<sup>19</sup> Adapted from on QFEmirates

<sup>20</sup> Adapted from OAAA Glossary

Special Needs Education	The provision of education for learners who require additional educational support. This would include persons with learning difficulties but may also apply to persons who are gifted and who may need additional support to maximize their potential.
Technological and Vocational Education and Training (TVET)	Education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market <sup>21</sup> .
Unit	The smallest component of a qualification for which a learner may enrol (see Course and Module). A unit or collection of units, if completed successfully, results in the award of a qualification <sup>22</sup> .
Unitisation	See Program
Validation	The process to confirm that the decision to initially list (register) a qualification on the Oman Qualifications Framework is valid <sup>23</sup> .
Volume of Learning	The notional learning hours required to complete all activities for the achievement of the learning outcomes.

<sup>21</sup> <http://www.eqavet.eu/qa/gns/glossary/v/vocational-education-and-training.aspx>

<sup>22</sup> Amended from OAAA Glossary (course)

<sup>23</sup> See OAAA/SQA Paper *Governance, Management and Implementation of the OQF: creating an enabling legal and regulatory environment*.



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## 1. INTRODUCTION AND BACKGROUND

In March 2014, the Education Council of Oman issued a mandate making the Oman Academic Accreditation Authority (OAAA) responsible for: *“developing and maintaining the Oman Qualifications Framework (OQF) for all types of qualifications and levels for schooling, vocational and technical education and training and higher education”*.<sup>24</sup>

The mandate follows a joint report by the World Bank and Ministry of Education (MoE) entitled *“Education in Oman – The Drive for Quality”*. The report noted that: *“while a qualifications framework for higher education already exists, this framework does not include post-basic or technical and vocational qualifications. As such, Oman lacks a comprehensive national framework of qualifications to compare educational and training qualifications within a coherent structure and to facilitate movement between courses”*.<sup>25</sup>

The report goes on to make a policy recommendation (page 51) to: *“develop a comprehensive national qualification framework (NQF)”*, with the rationale that: *“A comprehensive NQF allows course comparison and facilitates transitions among pathways”*.

The Education Council mandate resulted in the establishment of the OQF Development Project in May 2015. It is led by OAAA and supported by a team of experts from the Scottish Qualifications Authority (SQA). The Project is further supported by an OQF Development Team representing six sectors of education including General Education, Higher Education, Technological and Vocational Education and Training, Health Professional Education and Military Education and Training. This team represents one of the main drivers of the development process and comes under the direction of a senior OAAA official.

The introduction of a new *“comprehensive”* qualifications framework represents an expansion of the existing Oman Academic Qualifications Framework (OAQF), which is under the jurisdiction of OAAA and at the moment is only concerned with higher education. It is widely anticipated that this framework will be merged with the new framework as part of the development process.

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<sup>24</sup> <http://www.oaaa.gov.om/Framework.aspx#Fm> Qualification

<sup>25</sup> World Bank Report 2012 *“Education in Oman – The Drive for Quality”* (Summary, page 35 & 51)

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## 2. CONTEXT

As part of the OQF Development process, an Environmental Scan of qualifications currently offered in Oman was conducted in September 2015. The scan covered qualifications from General Education delivered in schools, Higher Education and Technological and Vocational Education and Training. The purpose of the scan was to identify the range and types of qualifications currently offered in Oman by both Government and private institutions and to determine their nature in terms of the use of learning outcomes.

The scan sampled 99 qualifications covering the following levels:

- Basic General Education;
- Higher Education Certificate level;
- Vocational Certificate level;
- Post Basic General Education;
- Diploma;
- Advanced Diploma;
- Bachelor Degree;
- Post Graduate Diploma;
- Master's Degree;
- Doctoral Degree.

The outcome of these activities will contribute to informing the design and scope of the OQF that will eventually be adopted in Oman. The criteria are that the model should be appropriate for the circumstances that exist in the country while at the same time incorporate best international practice.

It is within this context that the mapping activity was conducted. The activity took the Environmental Scan a stage further by carrying out a more in-depth analysis of a relatively small sample of qualifications to determine the existence of learning outcomes, levels of complexity, duration of study, quality assurance of assessments etc., in order to establish patterns and trends<sup>26</sup>. It also investigated issues concerned with meeting the criteria for recognition on a future internationally benchmarked OQF.

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<sup>26</sup> Project Plan: Ref A6d

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### 3. PURPOSE OF THE MAPPING EXERCISE

As stated above, the mapping exercise focused on a relatively small number of qualifications covering the educational level spectrum. Its purpose included the following:

- From an internationally accepted standards perspective, investigate each qualification in terms of design and structure, content, appropriate level of complexity, assessment criteria, quality assurance and student progression;
- Enable comparisons between different educational sectors, supervising authorities, qualification levels and the providing institutions in terms of consistency and standardisation;
- Establish patterns and trends that would inform the scope and design of the OQF;
- Establish to what extent the qualifications would meet the criteria for recognition on a future internationally benchmarked OQF, identifying gaps and necessary remedial action;
- Identify any capacity development requirements that may have been highlighted by the activity's findings.

Ron Tuck (2007)<sup>27</sup> discusses a number of issues concerned with the criteria necessary for a qualification to be recognised on a Qualifications Framework. These criteria are now a common feature in the design of qualifications in many countries that have introduced their own frameworks. This was evidenced during recent research conducted by the OQF Development Team to examine the qualification frameworks of seven countries as part of a benchmarking exercise. The countries included Bahrain, United Arab Emirates, Australia, Ireland, Malaysia, Scotland and New Zealand. The criteria can be summarised as follows:

- The learning program should be outcomes based and described with clear learning outcomes that state what the learner should be able to do at the end of the learning process;
- Each learning outcome should be fully assessed using methods that are valid, reliable, practicable and cost effective;
- The assessments and assessment processes must be quality assured;
- The learning program that leads to the award of a qualification should be unitised, i.e. based on units/modules/courses;

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<sup>27</sup> An Introductory Guide to National Qualifications Frameworks (2007) Section 4.2 & 5

- 
- The qualifications should have undergone a quality assured validation process to ensure they are “fit for purpose”.

It is anticipated that the OQF will require similar criteria to be satisfied when it is eventually introduced.

## **4. METHODOLOGY**

The mapping activity was carried out by SQA in conjunction with members of the OQF Development Team and involved desk research, web-based research and meetings with institutions and relevant ministries. The team was briefed prior to commencing the activity and was provided with a pre-prepared survey template to guide the investigation and to ensure standardisation and consistency of the information gathered (Appendix 2).

The Development Team members were asked to research a minimum of two qualifications at different levels and report on two courses/units from each. However, in order to access the required information, they faced a number of challenges and constraints as follows;

- Due to logistical reasons, they were unable to have face-to-face meetings with providers and other relevant authorities in order to source the information;
- For this reason, the research was confined to desktop and web-based activities;
- As there is no central information base where information can be readily accessed, information was difficult to find;
- Every provider and/or supervising authority has a different system of presenting their information and institutional websites lack detail about the qualifications they offer.

The findings in this report are based on the information and evidence provided by the OQF Development Team from the research that was carried out.

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The research focused on a number of key questions for each qualification, which are summarised in the following table:

**Table 1: Key Questions**

### **KEY QUESTIONS**

#### **Questions concerned with the overall qualification program:**

Does the qualification conform to some standard design?

- ◆ Who is the target audience for the qualification?
- ◆ What are the entry requirements?
- ◆ What is the duration of study?
- ◆ Is the program unitised?
- ◆ If it is unitised - how many courses/units make up the program?
- ◆ Are the outcomes for the overall qualification specified?
- ◆ Is the complexity level of the program content appropriate?
- ◆ Is there a curriculum map?
- ◆ What are the progression routes after graduation?

#### **Questions concerned with individual courses/units that make up the program:**

- ◆ What is the duration of study for the course/unit?
- ◆ Is a prerequisite stated?
- ◆ Is the course/unit described in terms of learning outcomes?
- ◆ How many learning outcomes make up each course/unit?
- ◆ Are the learning outcomes structured correctly, i.e. active verbs, subject matter, specific, clear, assessable?
- ◆ Do the learning outcomes make clear the knowledge, skills and competences that students must demonstrate?
- ◆ Are the assessment criteria specified?
- ◆ Are the assessment instruments specified?
- ◆ Do the assessments cover all of the learning outcomes?
- ◆ Are the assessment instruments appropriate?
- ◆ Is there a system of internal moderation to ensure quality assurance of assessments?

## 5. SUMMARY OF DATA GATHERED

This section is in two parts. The first part summarises information gathered about the various qualification programs that was gathered. The second section focuses on the courses/units that make up these qualifications.

### 5.1 The Qualifications

A total of 19 qualifications were researched and reports on 30 courses/units were produced from within these qualifications (Appendix 1 - separate spreadsheet). The qualifications researched included the following:

**Table 2: Qualification Sectors**

Higher Education	No	Technological & Vocational Education & Training	No	School Education	No
Master's Degree	1	Vocational Diploma	1	General Education Diploma	1
ACCA Professional Qualification	1	Certificate of Vocational Competency (Skilled)	2	General Education Certificate	1
Post Graduate Diploma	1				
Bachelor Degree	5				
Advanced Diploma	1				
Diploma	4				
Certificate	1				

#### 5.1.1 Entry Requirements

The entry requirements for the qualifications are often only described in academic terms, i.e. as graduates coming from a lower level qualification. Apart from two examples, little reference is made to people who may wish to enhance their career prospects and gain employment in a particular occupational sector. The entry requirements are generally clearly specified and considered to be appropriate.

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### **5.1.2 Duration of Study**

The volume of learning for most Higher Education qualifications was in compliance with the Oman Academic Qualifications Framework in that it was described in terms of credit. Technological and vocational qualifications and professional qualifications (ACCA) were described by duration of study.

### **5.1.3 Level of Complexity**

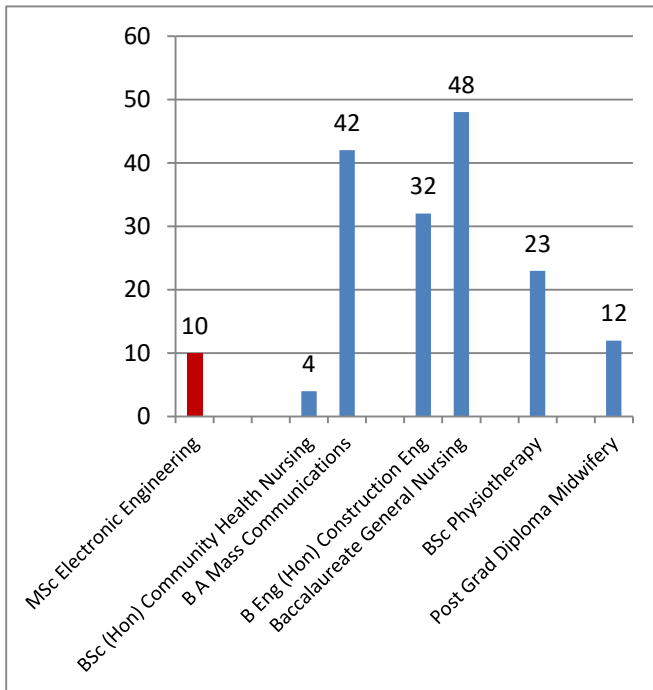
A professional judgement was made on the level of complexity of the learning outcomes of each qualification. This was a subjective judgement, based on the expert knowledge and experience of each individual researcher through analysing the skills, knowledge and competency described in the learning outcomes and comparing these with the overall program learning outcomes. In every case, the level of complexity for each of the qualifications examined was judged to be appropriate.

### **5.1.4 Unitised Programs**

All qualifications researched were found to be related to unitised programs. Mostly, the units are described as courses but in some cases they are described as either modules or papers. The number of courses/units tends to vary considerably for qualifications within a level category as shown in the figures below.

**Fig.5.1.4a**

Number of courses/units (Graduates & Post Graduates)



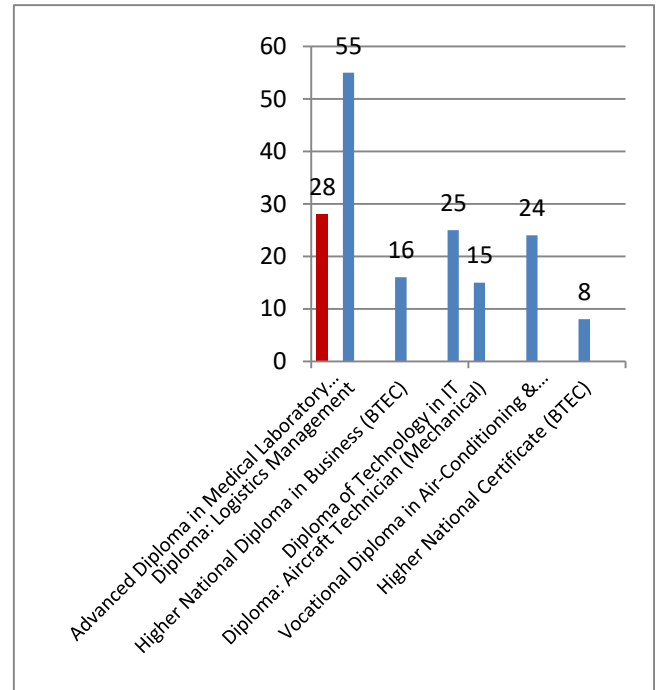
**Key to colours:**

Blue – Graduate

Red – Post Graduate

**Fig 5.1.4b**

Number of courses/units (Diploma)



**Key to colours**

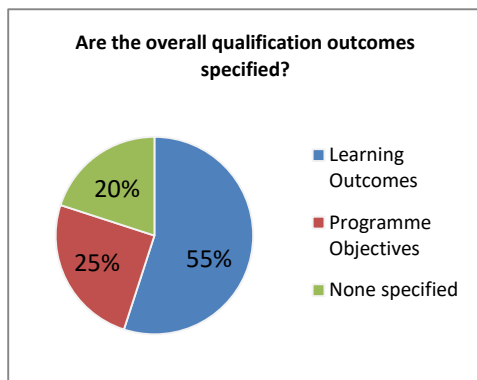
Blue - Diploma

Red – Advanced Diploma



### 5.1.5 Are the Qualifications Outcomes Specified?

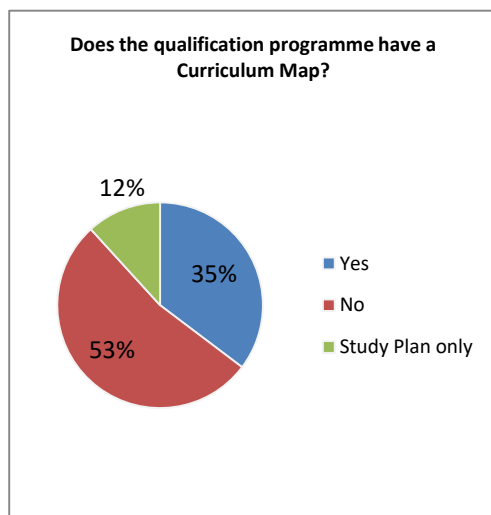
Fig. 5.1.5



The overall qualification learning outcomes were specified in just over half of the qualifications researched. Others specified objectives while the rest did not specify any outcomes.

### 5.1.6 Is there a Curriculum Map for the Qualification?

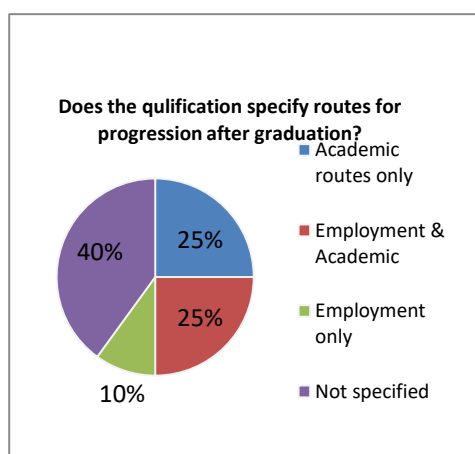
Fig. 5.1.6



Only just over one third of qualification specifications contained a curriculum map that showed how program learning outcomes would be covered and assessed. A smaller number only had a study plan that simply listed the courses that were to be delivered within semesters and the remainder did not have a curriculum map.

### 5.1.7 Does the Qualification Specify Routes for Progression after Graduation?

Fig. 5.1.7



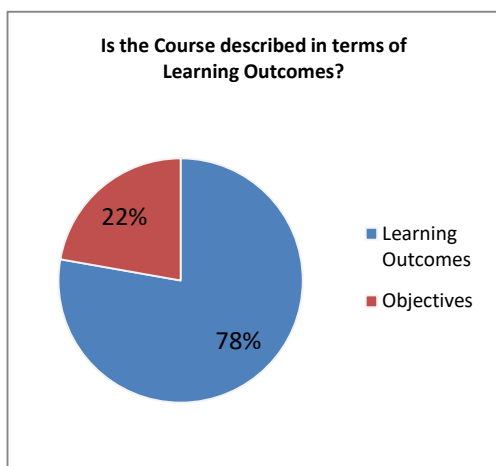
There was considerable variation in the way that routes for progression after graduation were described. A quarter of the qualifications specified both academic and employment routes while another quarter highlighted academic routes only. Almost two thirds did not highlight the potential employment opportunities that the qualification would bring. The remaining 40% did not specify any progression at all.

## 5.2 The Courses/Units

The previous section summarised information gathered about the various qualification programs that was gathered. This section focuses on the courses/units that make up these qualifications.

### 5.2.1 Is the Course Described in Learning Outcomes?

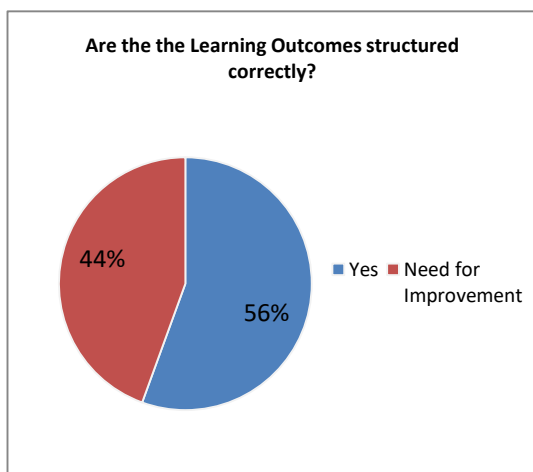
**Fig. 5.2.1**



78% of courses were described in terms of learning outcomes while the remainder specified objectives or aims that focused on learning input rather than outcomes. Despite this however, a significant number of so called objectives were written in outcome terms, suggesting that there may be an issue concerned with terminology. There was some variation in the number of learning outcomes/objectives in every course, ranging from 3 – 23.

### 5.2.2 Are the Learning Outcomes Structured Correctly, i.e. action verb, content, context, assessable, clearly worded and specific?

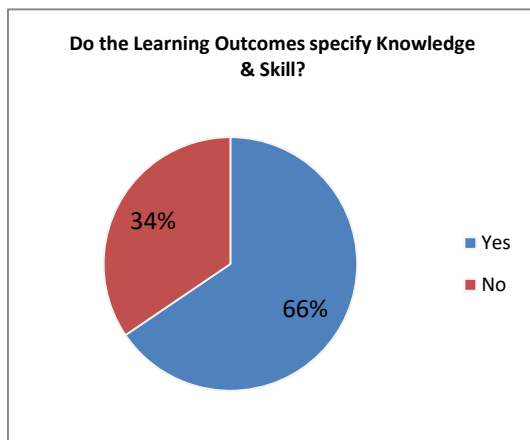
**Fig. 5.2.2**



Only just over half of the learning outcomes were found to be acceptable but a significant number were found to be in need of improvement, for example some had inappropriate action verbs that were difficult to access, actions that were difficult to assess, insufficiently specific wording and more than one action verb in an outcome.

### 5.2.3 Do the Learning Outcomes Specify the Knowledge, Skills and Competences that Students must Demonstrate?

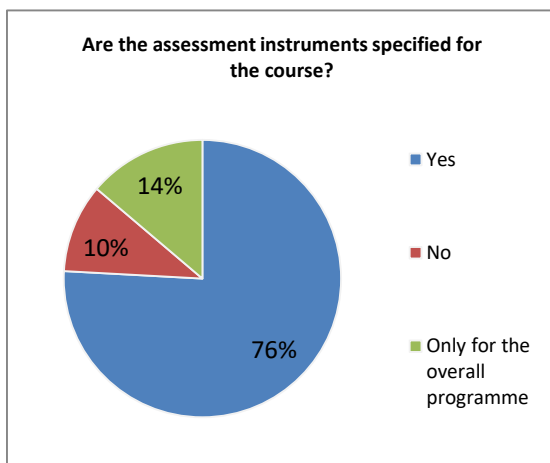
Fig. 5.2.3



Knowledge, skills and competence were often not made clear, in particular where courses were described in terms of objectives.

### 5.2.4 Are the Instruments of Assessment Clearly Specified?

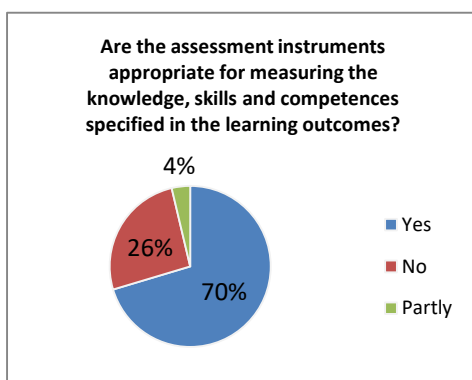
Fig. 5.2.4



In the majority of cases, the assessment instruments were specified for courses.

### 5.2.5 Are the Assessment Instruments Appropriate for Assessing all the Learning Outcomes?

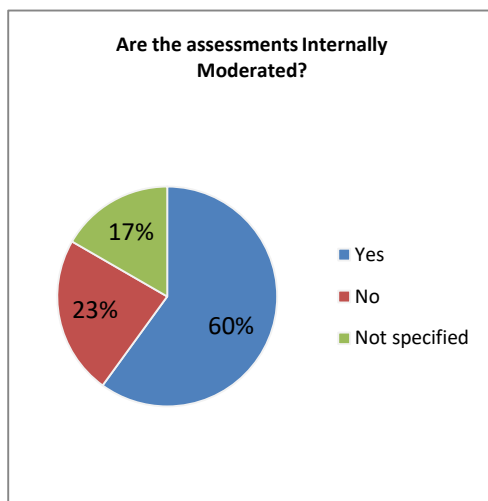
Fig. 5.2.5



Where assessment instruments were specified, they were judged appropriate in 70% of cases. Instruments that were not considered satisfactory included examples where learning outcomes could not be adequately assessed or the instruments were the wrong ones for assessing knowledge, skills and competences. In 4% of the cases, the assessments did not cover all of the learning outcomes.

## 5.2.6 Is there a System of Internal Moderation to Ensure Quality Assurance of Assessments?

Fig. 5.2.6



The research revealed some important issues concerned with the quality assurance of assessments in some institutions. While in 60% of cases, there was evidence that internal moderation existed, however in 17% of cases there was no evidence of internal moderation. In almost a quarter of cases, there is no internal moderation.

## 6. ANALYSIS

For the purpose of this analysis, the qualifications have been grouped into the following categories and will be considered separately:

1. General Education provided by Government schools;
2. Higher Education supervised by:
  - Ministry of Higher Education (MoHE);
  - Ministry of Manpower (MoM);
  - Ministry of Health (MoH);
  - Ministry of Defence (MoD).
3. International Professional Qualification.
4. Technological and Vocational Education and Training.

The analysis for each of these groups will focus on the following criteria:

- The design and structure of the qualification;
- The content complexity level;
- Learning outcomes;
- Assessment criteria;
- Quality assurance of the assessment process;
- Student progression.

## **6.1 General Education Provided by Government Schools and Supervised by the MoE**

The mapping exercise focused on the two Omani school qualifications provided by Government schools. International school qualifications provided by mainly private schools have not been included in this exercise as it was decided to concentrate on the indigenous Omani qualifications in this sector. The qualifications researched are:

- Certificate of General Education;
- Diploma of General Education.

### **6.1.1 Qualification Design**

The Certificate of General Education is awarded to school students who have successfully completed the Grade 10 program of study. It follows successful completion of Grades 1 – 9 and consists of one year of study comprising two semesters.

The Grade 10 program consists of 12 subject areas, each of which is made up of units. The subjects are divided into the following categories:

- Six general academic subjects including Islamic Studies, Arabic, English, Mathematics, Sciences and Social studies;
- Three individual skills subjects including Music, Art, Physical Education;
- Three general skills subjects including IT, Life Skills and Career Guidance.

Students are assessed and must pass all six general academic subjects. They must also study the skill subjects but there is no pass/fail requirement for these.

The subject researched for this qualification was Mathematics, consisting of 73 learning outcomes to be achieved over one year of study.

The General Education Diploma is awarded to school students who have successfully completed the Grade 12 program of study. It follows successful completion of Grade 11 and consists of one year of study comprising two semesters.

The program consists of nine subject areas including five mandatory subjects and four electives. The mandatory subjects include Arabic, English, Mathematics, Islamic Studies and Social Studies. All subject areas consist of units described in terms of learning outcomes.

The subject researched for this exercise was “Engage with English”. The range of learning outcomes offered to students varies according to the level of qualification, which is appropriate to the students’ existing language skills.

### **6.1.2 Learning Outcomes**

The learning outcomes for both sets of qualifications are all technically correctly structured and clearly written. They are categorised as knowledge, skills and “emotional”.

### **6.1.3 Assessment Criteria**

The information available about assessment criteria associated with these qualifications was more detailed than that available in relation to qualifications from the other sectors.

The assessment criteria for both sets of qualifications are specified in detail in the Subject Documents for Assessing Students for Grades 5 – 10 and Grades 11 – 12. The criteria clearly link assessments to learning outcomes, including the assessment tools that are to be used. It also includes guidance for teachers as to how the assessments should be carried out.

Assessments for the General Education Certificate (Grade 10) consist of:

- Continuous assessment and end-of-semester examinations which are prepared centrally by the General Directorate of Educational Evaluation and marked by each respective school under the administration of the relevant Regional Governorate Education Authorities.
- Assessments for the General Education Diploma (Grade 12) consists of:
- Continuous assessment, national end-of-semester examinations prepared, administered, marked and analysed by the General Directorate of Educational Evaluation and approved by the Ministry of Education.

### **6.1.4 Quality Assurance**

The continuous assessments for both qualifications are quality assured by a system of internal moderation within each school. The system involves scrutiny by peer teachers, senior teachers, supervisors, school principals and regional governorate assessment officers.

In addition to internal moderation, the continuous assessments for the General Education Diploma are also externally moderated. The teams of moderators consist of subject specialists and come from regions outside those where the schools are located to ensure externality and impartiality. This involves teams of moderators, external to the school, visiting each Grade 12 school to examine the marks awarded by teachers to ensure that they are reliable and consistent. The system is managed and supervised by the General Directorate of Educational Evaluation and Examinations in cooperation with the 11 regional education authorities. External moderation takes place towards the end of each semester.

### **6.1.5 Progression Routes**

On successful completion of Grade 10, students can either leave school or go on to Grades 11 and 12 for further study in order to gain the General Education Diploma. Students who decide to leave may either go directly into employment or go on to study in a Vocational Training Centre.

Grade 12 students can go on to further study in Higher Education, through the Higher Education Admission Centre (HEAC) or to Technological Vocational Education and Training through the Ministry of Manpower.

## **6.2 Higher Education**

Fourteen qualifications were researched in this category and are listed in Appendix 1. As stated earlier, they cover those that are supervised by the MoHE, MoM, MoH and MoD. For the purpose of this report, they will be considered separately in the following paragraphs.

### **6.2.1 Higher Education supervised by the MoHE**

The following qualifications were mapped within this category:

- MSc in Electronic Engineering provided by the Middle East College;
- B A in Mass Communications provided by the Colleges of Applied Sciences;
- B Eng (Hon) in Construction Engineering provided by the Caledonian College;
- Higher National Diploma in Business (BTEC) provided by the College of Banking and Finance;
- Higher National Certificate (BTEC) provided by the College of Banking and Finance.

#### **6.2.1.1 Qualification Structure and Design**

All qualifications researched in this category are unitised and made up of courses although in some cases they are referred to as units or modules. The latter are usually associated with foreign qualifications that are provided by institutions affiliated with international institutions or organisations.

It was found that the number of courses/units comprising some qualifications with similar study durations tend to vary significantly within this group. For instance, among the 3 qualifications researched at Bachelor Degree level, the numbers range from 10 to 42 courses/units while the duration of study is the same. This suggests that, for some qualifications, there does not appear to be a standard notional learning time for courses/units.

The research revealed that overall program outcomes for all qualifications in this group are described in terms of learning outcomes. The volume of learning for the Bachelor Degree

qualifications are described in terms of credits while the three Diploma qualifications are expressed in “academic years”.

All qualifications in this group specify entry requirements with a focus only on academic prerequisites whilst ignoring people who may not necessarily meet these criteria but who may wish to gain access based on relevant industrial experience. This would become an important matter for consideration if Oman adopts a policy of lifelong learning where people will be given the opportunity to continue building their capacity throughout their lifetime.

From the documentation provided, only one qualification in this group (MSc in Electronic Engineering) has a curriculum map that maps out how the course/unit learning outcomes cover the knowledge, skills and competences specified in overall program outcomes. The inclusion of curriculum maps in the design of qualification specifications is considered to be vital to ensure that all outcomes are covered during teaching and assessment.

The complexity level of all qualifications within this group is considered to be appropriate to the level in the OAQF to which they are related.

#### **6.2.1.2 Course Learning Outcomes**

All the courses within this group are described in terms of learning outcomes and in all cases, the learning outcomes are technically correctly structured, specific and clear.

#### **6.2.1.3 Assessment Criteria**

The assessment criteria are specified for all qualification in this group. The assessment instruments are also specified and deemed to be appropriate in most cases. The exceptions are in the courses “Linear Control Engineering” and “Project Management” (MSc Electronic Engineering) where some of the instruments are not compatible with the skills and knowledge that are to be measured.

#### **6.2.1.4 Quality Assurance**

All institutions offering qualifications within this category have systems of internal moderation in place and are subject to the OAAA quality assurance criteria.<sup>28</sup> The quality assurance arrangements are specified for all qualifications researched except one (MSc Electronic Engineering), where this information is not available from the documentation provided.

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<sup>28</sup> [http://www.oaaa.gov.om/Institution.aspx#Inst\\_Assessment\\_New](http://www.oaaa.gov.om/Institution.aspx#Inst_Assessment_New)



With the exception of those institutions that are affiliated with international partners, none of the qualifications researched in this category makes any reference as to whether their programs are externally quality assured. The BTEC HNC and HND in Business, provided by the College of Banking and Finance, are externally moderated by Edexcel from the UK, who are also the awarding body for these qualifications.

#### **6.2.1.5 Progression Routes**

The progression routes for graduating students are specified in all qualifications within this category. Three qualifications (i.e. BSc Electronic Engineering, HND and HNC Business) specify both academic and employment routes while the remainder only specify academic progression to the next qualification level.

It is considered important that, in addition to academic progression, potential students are also made aware of the possible employment opportunities that a qualification can bring, where appropriate.

### **6.2.2 Higher Education supervised by the MoM**

The qualification mapped within this category is the Diploma of Technology in IT provided by the Colleges of Technology that come under the supervision of the MoM.

#### **6.2.2.1 Qualification Structure and Design**

This qualification is unitised and comprised of 25 courses divided into:

- 7 College Requirement courses;
- 12 Major Requirement courses;
- 5 Department Requirement courses;
- 1 One Foundation Requirement course (Pure Maths).

All courses are core; there are no electives. The volume of learning is specified as 2 years or 72 credit hours. The overall program is described in goals, objectives and learning outcomes.

The entry requirements are specified as school graduates with a General Education Diploma.

The qualification specification does not include a curriculum map.

The qualification complexity level is considered to be appropriate to the level in the OAQF to which it is related.

### **6.2.2.2 Course Learning Outcomes**

All learning outcomes for the course that was researched for this qualification are technically correctly structured and are clear and specific.

### **6.2.2.3 Assessment Criteria**

The assessment criteria are not specified in the documentation provided but the assessment instruments are listed and considered to be appropriate for the outcomes to be assessed.

### **6.2.2.4 Quality Assurance**

The Colleges of Technology, which are the providing institutions for this qualification are, like other Higher Education Institutions, subject to comply with the OAAA quality assurance criteria<sup>29</sup> and therefore are required to have systems of internal moderation in place to quality assure the assessment process. The details of this however, are not specified in the qualification documentation provided. Details of any external moderation arrangements are not given either.

### **6.2.2.5 Progression Routes**

The progression routes for this qualification are not specified in the documentation provided.

## **6.2.3 Higher Education supervised by the MoH**

The following qualifications were mapped within this category:

- Post Graduate Diploma in Midwifery provided by the Oman Speciality Nursing Institute (OSNI);
- BSc (Hon) Community Health Nursing Practice Provided by OSNI;
- Baccalaureate in General Nursing provided by the Regional Nursing Institutes;
- Bachelor of Science (Physiotherapy) provided by the Institute for Health Sciences (IHS);
- Advanced Diploma in Medical Laboratory Sciences provided by the IHS.

### **6.2.3.1 Qualification Structure and Design**

All qualifications researched in this category are unitised and made up of courses, although in the BSc (Hon) Community Health Nursing Practice they are referred to as “modules”.

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<sup>29</sup> [http://www.oaaa.gov.om/Institution.aspx#Inst\\_Assessment\\_New](http://www.oaaa.gov.om/Institution.aspx#Inst_Assessment_New)

The overall program outcomes are described in terms of learning outcomes with the exception of BSc Physiotherapy and the Advanced Diploma in Medical Laboratory Sciences where they are described as objectives, although they are written in outcome terms.

The volume of learning is expressed in academic years and months, ranging from 3 years for the Advanced Diploma, 4 years for a Bachelor Degree and 18 months for the Post Graduate Diploma.

Academic entry requirements are clearly stated for the Post Graduate Diploma in Midwifery, Baccalaureate in General Nursing and Bachelor of Science (Physiotherapy), but this information is not specified for the remainder in this group.

From the documentation provided, only three qualifications contain a curriculum maps (Baccalaureate in General Nursing, Bachelor of Science (Physiotherapy) and Post Graduate Diploma in Midwifery). This vital component is absent in the remaining qualification specifications.

The complexity level of all qualifications within this group is considered to be appropriate to the level in the OAQF to which they are related.

#### **6.2.3.2 Course Learning Outcomes**

All the courses within this group are described in terms of learning outcomes although in the case of the Bachelor of Science (Physiotherapy) and the Advanced Diploma in Medical Laboratory Sciences, they are referred to as objectives, despite being written in outcome terms.

Most learning outcomes are correctly structured, specific and clear with the exception for the courses Haematology 1 - Theory (Advanced Diploma in Medical Laboratory Sciences) and Anatomy & Physiology (II) (Baccalaureate in General Nursing) where some are in need of review. Examples include the use of more than one active verb and the use of wording describing actions that are difficult to assess.

#### **6.2.3.3 Assessment Criteria**

The assessment criteria are specified for all qualification within this group. The instruments of assessment are also specified, except for the course “Art and Science in Midwifery Practice” (Post Graduate Diploma in Midwifery), where this information was not available.

All assessment instruments in this qualification category are considered to be appropriate for the learning outcomes they are designed to assess.

#### **6.2.3.4 Quality Assurance**

All institutions within this category are subject to comply with the OAAA quality assurance criteria<sup>30</sup> and therefore are required to have systems of internal moderation in place to quality assure the assessment process. There are instances however where this information is not specified in the qualification documentation provided. They include the Bachelor of Science (Physiotherapy) and the Advanced Diploma in Medical Laboratory Sciences. This may just be due to omissions in the available documentation.

In terms of external moderation, the BSc (Hon) in Community Health Practice provided by the Oman Speciality Nursing Institute (OSNI), is quality assured by Cardiff University in the UK, with whom they are affiliated. Additionally, the competences for the Post Graduate Diploma in Midwifery, also provided by OSNI are benchmarked against the standards of the International Confederation of Midwives (ICM).

Apart from the above, there is no evidence about whether any of the other qualifications within this category are externally moderated.

#### **6.2.3.5 Progression Routes**

The progression routes for the qualifications BSc (Hon) in Community Health Nursing Practice and the Baccalaureate in General Nursing, both specify academic progression and/or employment. However, the documentation for the Bachelor of Science (Physiotherapy), the Post Graduate Diploma in Midwifery, and the Advanced Diploma in Medical Laboratory Sciences do not have any progression statements.

### **6.2.4 Higher Education supervised by the MoD**

The following qualifications were mapped within this category:

- Diploma in Logistics Management;
- Technical Diploma in Aircraft Engineering.

#### **6.2.4.1 Qualification Structure and Design**

Both qualifications researched in this category are unitised and made up of courses that are referred to as “modules”. The number of modules range from 15 (Technical Diploma in Aircraft Engineering) to 55 (Diploma in Logistics Management).

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<sup>30</sup> [http://www.oaaa.gov.om/Institution.aspx#Inst\\_Assessment\\_New](http://www.oaaa.gov.om/Institution.aspx#Inst_Assessment_New)

The volume of learning for the Diploma in Logistics Management is two years while that for the Technical Diploma in Aircraft Engineering is specified as 60 weeks.

The overall program outcomes are referred to as “objectives” but are written in outcome terms.

Both qualifications in this group specify the necessary entry requirements, which include both academic and prior practical or professional achievement.

From the documentation provided, neither of these two qualifications have a curriculum map.

The complexity level of all qualifications within this group is considered to be appropriate to the level in the OAQF to which they are related.

#### **6.2.4.2 Course Learning Outcomes**

The learning outcomes for the two courses in the Diploma in Logistics Management are written in outcomes terms but are not always clear or correctly structured.

The outcomes for the two courses that comprise the Technical Diploma in Aircraft Engineering are written as objectives.

#### **6.2.4.3 Assessment Criteria**

The assessment criteria are specified for both qualifications within this group. Assessment instruments are also specified for both sets of courses within the qualifications and, notwithstanding the issues concerned with the learning outcomes and objectives described above, considered to be appropriate.

#### **6.2.4.4 Quality Assurance**

As with the previous two Higher Education categories, the provider of these qualifications, i.e. the Air Force Technical College, is required to comply with the quality assurance criteria of the OAAA<sup>31</sup> and therefore all assessments undergo internal moderation. The process is administered under the control of the College’s Training Quality and Design Department (TQ&D) and covers both training and assessment.

Information about whether any external moderation processes are in place was not available.

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<sup>31</sup> [http://www.oaaa.gov.om/Institution.aspx#Inst\\_Assessment\\_New](http://www.oaaa.gov.om/Institution.aspx#Inst_Assessment_New)

#### **6.2.4.5 Progression Routes**

Both qualifications specify progression routes to further training and/or employment opportunities within the Royal Air Force of Oman.

### **6.3 International Professional Qualifications**

Only one qualification was researched within this category as follows:

- The ACCA Professional Qualification, provided by Majan College and supervised by the MoHE.

This is an internationally recognised qualification for professional accountants and is offered in many countries throughout the world, including the Middle East. The awarding body is the Association of Chartered Certified Accountants (ACCA) in the UK.

#### **6.3.1 Qualification Structure and Design**

The qualification carries a reference to the relevant EQF level 7 and is aligned to a Master's Degree on the England, Wales and Northern Ireland qualifications framework. In the future, once the OQF is implemented and established, it may be possible to work with the UK Regulatory Bodies with regard to a possible alignment of the new OQF through a translation exercise, which is generally known as referencing.

The qualification is a unitised program consisting of seven "papers" with an overall learning time of 800 hours. The successful completion of four papers is required to achieve the qualification, three of which are mandatory. A curriculum map is available.

The program title reflects the content to some extent and it is assumed that it would be obvious and meaningful to practitioners within the accounting profession. The overall program outcomes are not specified.

#### **6.3.2 Learning Outcomes**

The course (paper) forming part of this qualification that was researched is entitled Business

Analysis (Paper 3). It consists of high order cognitive skills, reflecting the level of the qualification.

The paper consists of eight outcomes, referred to as "Main Capabilities". The outcomes are worded clearly, conforming to all technical requirements and can be assessed.

### **6.3.3 Assessment Criteria**

The qualification documentation does not give assessment criteria but the instruments for assessing the outcomes are specified and considered to be appropriate.

### **6.3.4 Quality Assurance**

The assessments are internally moderated by Majan College, in compliance with ACCA quality criteria. Further quality assurance including external moderation is carried out by a range of agencies including ACCA.

### **6.3.5 Progression Routes**

The progression statement points toward employment within the accounting profession.

## **6.4 Technological and Vocational Education and Training**

Qualifications within this category are provided by a network of Government owned Colleges of Technology (CoTs), Vocational Training Centres (VTCs) and Private Training Institutions (PTIs), all supervised by the MoM.

The qualifications researched within this category are:

- Diploma of Technology in IT provided by the Colleges of Technology. The outcomes of this research has been included in the Higher Education section. (See Section 6.2.2);
- Vocational Diploma in Air-conditioning and Refrigeration Engineering, provided by Government VTCs;
- Certificate of Vocational Competency (Skilled) in Air-conditioning and Refrigeration Engineering, provided by Government VTCs;
- Certificate of Vocational Competency (Skilled) in Radio and TV Maintenance provided by the Private Rusayl Institute (PTI).

### **6.4.1 Qualification Design**

#### **6.4.1.1 The Vocational Diploma in Air-conditioning and Refrigeration Engineering**

This qualification comprises 24 courses and has a duration of 2 years. The program consists of “General Supporting” Courses and “Specialised” Courses.

The learning outcomes for the overall program are not stated and there is no curriculum map, although there is a course plan that lists the courses and timing in which they are taught.

The entry requirements are not specified but, information obtained during the Environmental Scan indicates that the entry prerequisite is a General Education Diploma.

The two courses researched from within this program are Chemistry 2, which is categorised as a General course, and Electrical Controls, which is a Specialised course. Both have a duration of 12 weeks. In the absence of overall program outcomes, the complexity level cannot be judged.

#### **6.4.1.2 Certificate of Vocational Competency (Skilled) in Air-conditioning and Refrigeration Engineering**

This qualification comprises 6 courses. Each course consists of a number of units that vary in size according to course content. The program has a study time of 64 weeks.

The two units researched in this qualification are entitled Occupation Science and Simple Mechanical skills. The latter is a practical training unit and both have a study duration of 5 weeks.

The entry requirements are not specified but judging from the information obtained during the Environmental Scan and through general practice, these program are accessed by school students of Grade 9 and above.

The overall program outcomes are stated and the complexity level is considered to be appropriate. The program does not have a curriculum map.

#### **6.4.1.3 Certificate of Vocational Competency (Skilled) in Radio and TV Maintenance**

This qualification is offered by Rusayl Institute, which is a private training institute (PTI). The total training time is 1500 hours spread over one year, which is comparable with a full-time academic year.

The qualification is made up of 8 units and 43 sub-units. The unit researched for this mapping exercise is entitled Safety at Work, which is a sub-unit of a main unit entitled Health and Safety. It has a total learning time of 45 hours.

The learning outcomes for the overall program are not specified and there is no curriculum map.

The entry requirements are not specified in the qualification documentation provided.

### **6.4.2 Learning Outcomes**

#### **6.4.2.1 Vocational Diploma in Air-conditioning and Refrigeration Engineering**

There is a lack of uniformity between the learning outcomes of the “General” and “Specialised” Courses. The General Courses are described and written in the form of objectives, while those in the Specialised Courses are referred to as learning outcomes and terminal learning outcomes. Also, the



General Courses tend to have a greater number of objectives than the number of learning outcomes in the Specialised Courses.

#### **6.4.2.2 Certificate of Vocational Competency (Skilled) in:**

- Air-conditioning and Refrigeration Engineering;
- Radio and TV Maintenance.

In both of these qualifications, there is little consistency in the way that learning outcomes are structured. They are often described as aims and/or objectives and do not clearly specify the knowledge, skills and competence that students need to demonstrate and therefore are difficult to assess. Some outcomes do not start with action verbs while others use more than one verb.

#### **6.4.3 Assessment Criteria**

No assessment criteria are specified for any of the qualifications mapped in this category but assessment instruments are specified for each of the courses. The instruments are appropriate for the Diploma and Certificate qualifications provided by the VTCs. However, with regards to the Certificate qualification provided by the PTI, the assessment instruments are not always in alignment with the knowledge and skills that are to be assessed.

General guidelines for assessing Technological and Vocational Education and Training are provided by the three responsible Directorates General (MoM) but it is not clear if these guidelines are fully implemented.

#### **6.4.4 Quality Assurance**

Details of how assessments are quality assured are not given in the program specifications.

#### **6.4.5 Progression Routes**

There are no progression statements specified in any of the qualification specifications mapped in this category.

## **7. ISSUES AND TRENDS**

### **7.1 Qualification Design Viewed from an International Perspective**

The source for the research information was the qualification specification for each program, obtained from either a website or from the relevant institution or supervising authority. It was found that the design, content and presentation of these documents varied widely with different

providers. Viewed from an international perspective, the essential information was often either not available or was presented in various different formats.

Typical shortcomings that were identified from an international best practice perspective include:

- The overall program outcomes are often described using different terminology e.g. objectives and goals instead of being expressed as learning outcomes;
- A curriculum map that specifies how the program learning outcomes will be covered by the various course learning outcomes is often not available;
- Higher Education entry requirements tend to focus mainly on academic prerequisites while neglecting to specify relevant industrial experience for people coming from industry who may wish to gain access. This would become an important matter for consideration if Oman adopts a policy of lifelong learning in the future, where people are given the opportunity to continue building their capacity throughout their lifetime;
- Progression statements are often omitted, which is unhelpful to potential students who may need guidance on how to use qualifications for academic articulation to further studies. Also, where progression statements are provided, the stated routes often only focus on academic paths whilst omitting advice to graduates about potential employment opportunities;
- Course learning outcomes are sometimes described in terms of objectives, aims or goals and often do not make clear the necessary knowledge, skills and competences that students should demonstrate;
- Assessment criteria are often not specified;
- Often there are no details about how the assessments will be quality assured.

These shortcomings will require to be addressed through the establishment and implementation of the OQF.

## **7.2 Comparisons Between Different Educational Sectors**

The mapping revealed that, apart for some issues highlighted in this report, Higher Education qualifications including those that are supervised by the MoHE, MoH and MoD are generally well structured, designed and quality assured. The two qualifications researched in the school education sector are similarly well established in terms of learning outcome, assessments and robust quality assurance mechanisms.

However, the mapping revealed several, relatively significant issues concerned with qualifications provided in the Vocational Education and Training sector. The issues include lack of consistency in qualification design between different providers, the way learning outcomes are structured, the absence of assessment criteria and the uncertainty about the application of quality assurance.

There is therefore a need to standardise the design of vocational training qualifications offered by the various providers including Government VTCs and PTIs in order to facilitate accurate

classification of these qualifications in the OQF. This standardisation should include learning outcomes developed from approved occupational standards, clear assessment criteria, standardised terminology and documentation. There is also a need to ensure that the guidelines on assessment quality assurance and evaluation issued by the Directorates General are implemented. It is understood however that work is currently ongoing to address some of these issues.

### **7.3 Qualification Levels and Oman Qualifications Framework Design**

The qualifications researched during this mapping exercise ranged from Master's Degree at one end of the spectrum to the General Education Certificate at the other (5.1, Table 1). The qualification levels of higher education are well defined by means of the current Oman Academic Qualification Framework. However, the relative levels of the Vocational and School qualifications are not defined and therefore the relationship between them and the Higher Education qualifications is not known at this time. This will become clear when the design of the new, comprehensive OQF has been established and associated level descriptors have been developed and implemented.

### **7.4 Learning Outcomes**

As already stated, the research revealed significant issues concerned with learning outcomes and the way they are structured and written. They are often not assessable and do not clearly express the knowledge, skills and competences that students need to demonstrate. The greatest concern is within the Vocational Education and Training sector, particularly in private training institutions, although there are also instances in Higher Education. Additionally, there are differences in terminology used for learning outcomes, e.g. objective, goals and aims are often used, both at program and individual course level. The differing terminology observed in the mapping exercise will be addressed in policies to be developed in the implementation of the OQF.

### **7.5 Assessment Criteria**

A further issue is the absence of assessment criteria in a significant number of qualifications that were researched. This will need to be addressed in the implementation of the OQF in order to ensure that all learning outcomes are appropriately assessed.

### **7.6 Qualification Curriculum Map**

Similarly, a curriculum map that maps out how program learning outcomes will be covered by the various course outcomes is often not available. Curriculum maps are essential component that

should be included within qualification specifications to ensure that all program learning outcomes are covered during teaching and assessment.

## **7.7 Standard Course/Unit Length**

There are wide variations in the number of courses that make up qualifications, which have similar learning hours. It suggests that there is no standard length for a course based on notional hours of learning. As it is planned to incorporate a Credit Accumulation and Transfer system (CAT) in the emerging OQF, clear policies, procedures and guidelines relating to the standardisation of course/unit length should be considered.

## **7.8 Central Information Base**

As stated earlier in this report, gathering information for the mapping activity was largely a desktop and web-based exercise. In some cases, getting access to relevant information was quite challenging, mainly because each provider or supervising authority has a different system of presenting their information, and institutional websites lack detail about the qualifications they offer.

The HEAC website was helpful to a limited extent in terms of providing data on higher education but the detailed information that was required was not always available. There is a need for creating a central information base where this type of information can be readily accessed.

# **8. RECOMMENDATIONS**

## **8.1 Capacity Building**

### **8.1.1 Capacity Building Strategy**

As described in this report, the mapping exercise identified a significant number of weaknesses in the status of some qualifications that would adversely affect their fitness to be listed on an international benchmarked qualifications framework. It suggests that there is a need to build capacity at various levels including curriculum developers, qualification designers and relevant staff within institutions. In a wider context, the implementation of the OQF will also require expertise to be developed on qualification systems for the purpose of disseminating the relevant information throughout the education and training sectors in Oman.

SQA recommends that an inter-ministerial committee representing the relevant educational sectors be formed with the remit to develop a strategy for building the capacity of relevant personnel to ensure that qualifications are designed to be fit-for-purpose and meet the criteria of the new OQF.

It is recommended that the OQF Development Project Oversight Committee take on this role in facilitating this.

### **8.1.2 Capacity Building Priorities**

In order to address some of the inconsistencies and weaknesses identified by the mapping exercise, SQA recommends that capacity building priorities should focus on reinforcing the current skills of curriculum developers, qualification designers and other associated personnel with a view to strengthening the following areas:

- Developing a consistent approach to qualification design;
- Developing correctly structured and assessable learning outcomes;
- Developing criteria for assessing learning outcomes;
- Developing appropriate instruments for assessing learning outcomes;
- Constructing curriculum maps to map course/unit outcomes against program outcomes and how they will be assessed;
- Mechanisms for quality assuring the assessment of learning outcomes.

## **8.2 Program Design**

As part of the preparation for the introduction of the new OQF, SQA recommends that agreement is reached on a consistent approach to the design of qualifications that are to be listed on the OQF. Design procedures should be based on international best practice but contextualised to suit the requirements and conditions in Oman. International best practice includes the following features:

- Access statements that include persons with relevant industrial experience as well as those coming via academic pathways;
- Overall program outcomes expressed in outcome terms;
- All course/unit learning outcomes correctly structured and clearly specifying the knowledge, skills and competences that students should demonstrate;
- Assessment criteria that specify how each learning outcome will be assessed;
- The methods of assessment for each learning outcome;
- Details of how assessments will be quality assured;
- A curriculum map that specifies how program outcomes will be covered by individual course/unit learning outcomes;
- Progression routes that include both academic and employment pathways where relevant;
- A common understanding of terminology to assist in the implementation of the OQF.

### **8.3 Standard Course/Unit Length**

As it is planned to incorporate a Credit Accumulation and Transfer system (CAT) in the emerging OQF, SQA recommends that there is a requirement for clear policies, procedures and guidelines relating to course/unit length.

### **8.4 Moderation**

#### **8.4.1 Internal Moderation**

The mapping activity has identified variations in quality assurance standards, as documented in the program specifications, across different institutions and between the Higher and Vocational Education sectors. It is recommended that a comprehensive quality assurance strategy be developed to co-ordinate the different quality assurance approaches that apply in the various sectors, involving all relevant supervising authorities. It is recommended that the OQF Oversight Committee takes a role in facilitates this process.

#### **8.4.2 External Moderation**

As previously stated, the mapping exercise did not identify any documented standardised systems of external moderation of assessment for qualifications in Oman, other than those in the school sector. In addition to strengthening the institutional quality assurance described above, it is recommended that a quality assurance strategy is developed for externally moderating the assessment processes within institutions. This will become a prerequisite for listing qualifications on the new OQF, in accordance with international best practice.

## **9. CONCLUSION**

Although the scope of this mapping activity was limited, it has nevertheless proved to be a valuable exercise in gaining an in-depth insight into some key features of a cross section of qualifications currently offered in Oman. It provided an opportunity to study the diversity of qualifications in terms of design, structure and presentation. It has also given a useful insight into the variation of information available from the different providers and responsible authorities, in particular their approach to assessment and quality assurance.

The information gathered and recommendations provided in this mapping study and the associated Environmental Scan have formed the basis for the design of the OQF level structure, the development of the Conceptual Design Framework and the Technical Design Framework. The data

from these two studies will further contribute to the implementation of the OQF in due course. The insight gained into the need for capacity building throughout the education and training sectors will contribute to the overall training needs analysis and the development of a training plan.

## **Appendix 1**

Mapping Data Sheet held separately



## APPENDIX 2

### Oman Qualification Framework Development (OQF) Project Qualification Mapping Checklist

#### 1. Information Needed on the Qualification

<b>Title of Qualification:</b>		<b>Name of Provider:</b>	
<b>Awarding Body:</b>		<b>Supervising Authority:</b>	
<b>Information Required</b>	<b>Evidence/Information found</b>		<b>Location of evidence</b>
Who is the target audience for this qualification?			
What are the entry requirements for the qualification?			
Are the entry requirements for the qualification appropriate?			
Does the level of the content reflect the complexity of learning required to achieve the qualification?			
Does the title of the qualification reflect the content?			
What is the duration of the qualification? (number of months of study for qualifications that are under a year duration or number of full-time years of study for qualifications one year and over).			
What are the learning outcomes for the full qualification?			

Information Required	Evidence/Information found	Location of evidence
Is the qualification made up of courses/units/modules?		
How many courses/units/modules make up the qualification?		
How many courses/units/modules is the learner required to take to achieve the qualification?		
How many of the courses/units/modules are mandatory (core) courses?		
How many of the courses/units/modules are electives (optional) courses?		
What are the progression routes to other qualifications or employment?		
Is there a curriculum map for the qualification?		

**2. Information needed on the course/unit/module (This will be required for both courses/units/modules)**

Information Required	Evidence/Information found	Location of evidence
What is the title of the course/unit/module that you are reviewing?		
Does the title of the course/unit/module reflect its content?		
Does the content of the course/unit/module reflect the required level of learning?		
Is there a pre-requisite course/unit/module for the one you are reviewing?		
Does the course/unit/module contribute to the learning outcomes for the full qualification?		
Where does the course/unit/module sit in the structure of the qualification (e.g. first year, second year etc?)		
What is the duration of the course/unit/module? E.g. number of weeks etc.		
Is the course/unit/module written in learning outcomes?		
If yes, how many learning outcomes are there in the course/unit/module?		

Information Required	Evidence/Information found	Location of evidence
Is each learning outcome in the course/unit/module clearly written so that it can be understood by the learner?		
Are the learning outcomes in the course/unit/module correctly structured? I.e. action verb, subject/content of learning and the context?		
Are the learning outcomes in the course/unit/module <b>specific</b> , i.e. do they specify the skills and knowledge that students are expected to demonstrate?		
Can the learning outcomes in the course/unit/module be assessed?		
Is the total number of learning hours for the course/unit/module available to the provider?		
Are the learning hours for the course/unit/module contact hours only?		

**3. Information needed on the assessment (performance) criteria (This will be required for both courses/units/modules))**

Information Required	Evidence/Information found	Location of evidence
Do the assessment criteria fully cover each of the learning outcomes in the course/unit/module?		
Do the assessment criteria specify what should be assessed and provide a guide as to how this should be carried out?		

**4. Information required for Assessment (This will be required for both courses/units/modules)**

Information Required	Evidence/Information found	Location of evidence
How are the learning outcomes in the course/unit/module assessed?		
Is the assessment designed to fully measure the learning outcomes specified in the course/unit/module?		
What assessment instrument(s) is (are) used? for example examination, practical demonstration		
Is each assessment instrument, e.g. closed book test, demonstration appropriate for measuring what is specified in the learning outcomes and assessment criteria?		

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**5. Information required on Quality Assurance for the Assessment (This will be required for both courses/units/modules)**

Information Required	Evidence/Information found	Location of evidence
How is the assessment for the course/unit/module conducted?		
Is there internal moderation of assessment for the course/unit/module? If so how is this carried out and by whom?		

**6. Summary**

For each qualification and its two courses/units/modules, summarise any gaps that you have found and specify what action you think should be taken to ensure that the qualification will meet the criteria for placing it on a qualifications framework.	
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## APPENDIX 3

### Oman Qualifications Framework Development Project Qualification Mapping Activity Details of Providers and Qualifications

Provider	Qualification	Course/Unit	Supervising Authority
Middle East College	MSc in Electronic Engineering	<ul style="list-style-type: none"> <li>◆ Linear Control Engineering</li> <li>◆ Project Management</li> </ul>	MoHE
Colleges of Applied Sciences	BA in Mass Communication	<ul style="list-style-type: none"> <li>◆ 3D Modelling and Visualisation</li> <li>◆ Introduction to Communication</li> </ul>	MoHE
Caledonian College	B Eng. (Hon) in Construction Engineering	<ul style="list-style-type: none"> <li>◆ Construction Engineering</li> </ul>	MoHE
College of Banking and Financial Studies	Higher National Diploma (HND) in Business (BTEC)	<ul style="list-style-type: none"> <li>◆ Business Decision Making</li> <li>◆ Taxation</li> </ul>	MoHE
	Higher National Certificate (HNC) in Business (BTEC)	<ul style="list-style-type: none"> <li>◆ Business Decision Making</li> <li>◆ Taxation</li> </ul>	MoHE
Majan College	ACCA Professional Qualification	<ul style="list-style-type: none"> <li>◆ Business Analysis Paper 3</li> </ul>	MoHE
Oman Speciality Nursing Institute (OSNI)	BSc (Hon) Community Health Practice	<ul style="list-style-type: none"> <li>◆ Fundamentals of community Practice</li> </ul>	MoH
	Post Graduate diploma in Midwifery	<ul style="list-style-type: none"> <li>◆ Art and Science in Midwifery Practice</li> </ul>	MoH
Muscat and Regional Nursing Institutes	Baccalaureate in General Nursing	<ul style="list-style-type: none"> <li>◆ Adult Health Nursing (II)</li> <li>◆ Anatomy &amp; Physiology (II)</li> </ul>	MoH
Institute of Health Sciences (IHS)	Bachelor of Science (Physiotherapy)	<ul style="list-style-type: none"> <li>◆ Fundamentals of Musculoskeletal Physiotherapy</li> <li>◆ Histology &amp; Physiology Physiotherapist</li> </ul>	MoH

	Advanced Diploma in Medical Laboratory Sciences	◆ Haematology 1 Theory	MoH
Air Force Technical College (AFTC)	Diploma: Logistics Management	◆ Commodity Cell ◆ Safety at Work	MOD
	Diploma: Aircraft Technician (Mechanical)	◆ Propulsion Phase ◆ Aircraft and Workshop Safety	MOD
Higher College of Technology	Diploma of Technology in IT	◆ System Analysis and Design	MoHE
Government Vocational Training Centres (VTCs)	Vocational Diploma in Air-conditioning and Refrigeration Engineering	◆ Electrical and Controls ◆ Chemistry 2	MoM
	Certificate of Vocational Competency (Skilled) in Air-conditioning and Refrigeration Engineering	◆ Simple Mechanical skills (Practical Activities) ◆ Occupation science	MoM
Rusayl Institute (Private)	Certificate of Vocational Competency – (Skilled): Radio and TV Maintenance Electronics (General)	◆ Health and Safety at Work	MoM
Government Schools	General Education Certificate	◆ Mathematics (Grade 10)	MoE
	General Education Diploma	◆ Engage with English (Grade 12)	MoE



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## **APPENDIX 4**

### **Acknowledgements**

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