



**БОЛОВСРОЛ,
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**NATIONAL QUALIFICATIONS FRAMEWORK FOR HIGHER EDUCATION
(PROPOSAL)**

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CONTENTS

LIST OF ABBREVIATIONS.....	3
SUMMARY OF DEFINITIONS AND TERMINOLOGIES.....	4
QUALIFICATIONS FRAMEWORK.....	5
CURRENT SITUATION OF MONGOLIA.....	11
NQF FOR HIGHER EDUCATION OF MONGOLIA (PROPOSAL).....	15
LEVEL.....	17
CREDITS.....	18
DOMAINS OF LEARNING.....	18
LEARNING OUTCOMES.....	19
LEVEL OF ENTRY TO HIGHER EDUCATION.....	25
ACADEMIC AND PROFESSIONAL QUALIFICATIONS.....	25
FIELD DESCRIPTORS.....	26
RECOGNIZING PRIOR LEARNING.....	28
UTILIZING NQF FOR QUALITY ACCREDITATION.....	29
REFERENCES.....	30

LIST OF ABBREVIATIONS

USA	United States of America
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
MECS	Ministry of Education, Culture and Science
WB	World Bank
NQFHE	National Qualifications Frameworks for Higher Education
HEI	Higher Education Institution
ICSHER	International Consulting Services for Higher Education Reform
HERP	Higher Education Reform Project
EU	European Union
UK	United Kingdom of Great Britain and Northern Ireland
VET	Vocational Education and Training
MCA	Millennium Challenge Account
NQF	National Qualifications Framework
MGL	Mongolia
ILO	International Labour Organization
CDIO	Conceive, Design, Implement and Operate
TE	Technical Education
SPTVET	Supporting Project for Technical and Vocational Education and Training
TVET	Technical and Vocational Education and Training
NVETF	National Vocational Education and Training Framework
MoL	Ministry of Labour
GIZ	German International Cooperation Agency
UNESCO	United Nations Education Science and Cultural Organization
NZQA	New Zealand Qualifications Authority
SCQA	Scottish Credits and Qualifications Authority
SAGA	South African Qualifications Authority
RA TE	Register of Australian Tertiary Education

SUMMARY OF DEFINITIONS AND TERMINOLOGIES

✓ **QUALIFICATIONS –**

Qualification is a level of required skills, knowledge and experience for one to competent for performing their appointed duty/work within the certain profession. (Amendment to the Vocational Education and Training Law of Mongolia, 2011)

✓ **QUALIFICATIONS FRAMEWORK-**

A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels (ILO, 2007). It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally (ILO, 2007)

✓ **RECOGNISING PRIOR LEARNING-**

Recognising previous learning is a process of recognizing and determining the qualification gained from the short term courses or less formally and/or based on the experience, skills and attitude towards gaining a qualification (Ministry of Education and Culture of Indonesia, 2013)

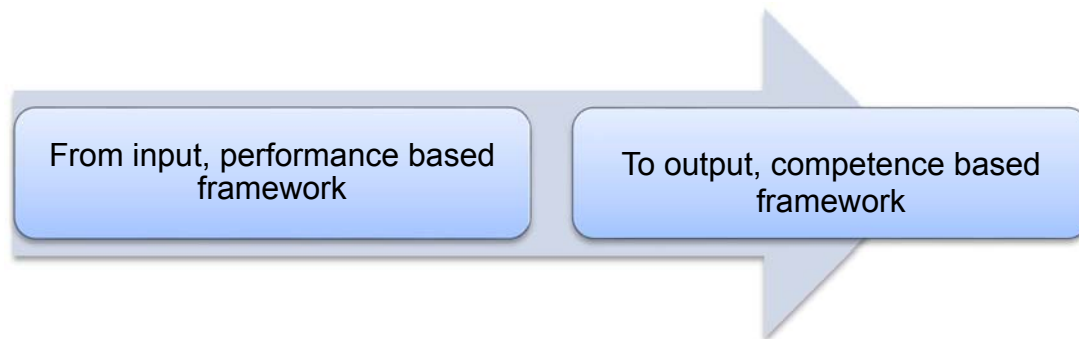
✓ **LEARNING OUTCOMES –**

Learning outcomes are statements that describe significant and essential learning that students have achieved, and can reliably demonstrate at the end of a course or program.

QUALIFICATIONS FRAMEWORK

A number of countries around the world are actively engaged with reforming their education system in compliance to their social and economic development and requirement for the past 30 years. According to the approach of education reform, it is converting from input and performance based framework to outcome and competence based framework (Figure 1) and widely implementing the joint proposals and initiatives such as competence based curriculum/training and outcome based curriculum/training and lately CDIO initiative that aimed for engineering and technological strands.

FIGURE 1. EDUCATION REFORM APPROACH, WORLDWIDE

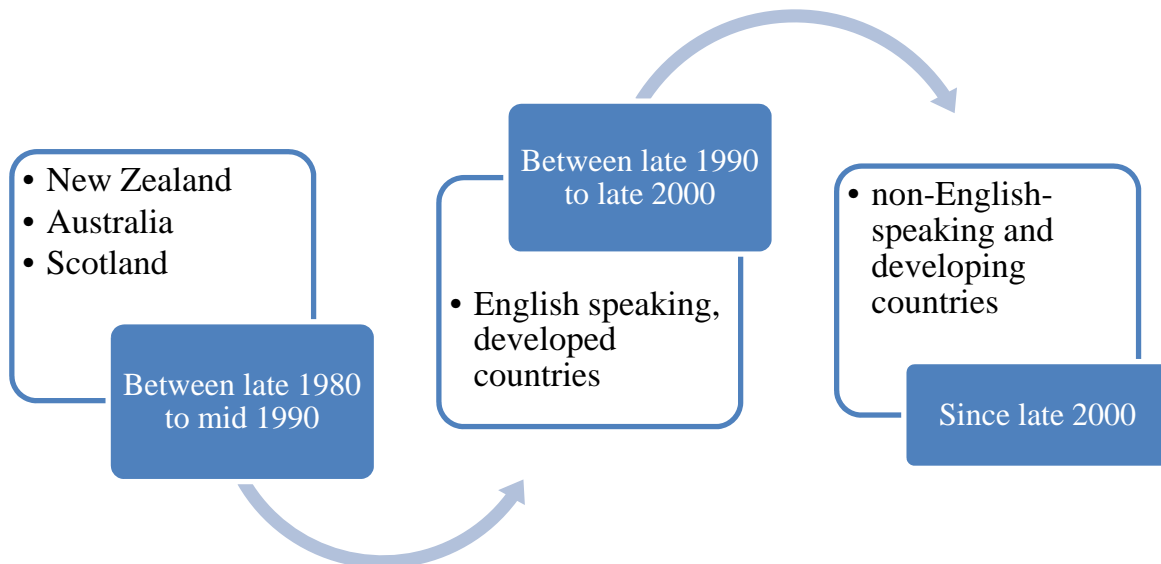


In the 1960s, the school education came under public criticism and crisis in the United States, many attempts were made to measure teacher's competence, knowledge and attitude. The origins of an outcomes-based approach to qualifications and curriculum in relation to those attempts, were historically traced to the reports on occupational survey/researches. (Young, 2009; Spreen, 2001). Since then, the idea of specifying learning outcomes was first introduced into vocational education and emerged explicitly in the process of Scotland's education reform established in January, 1984. During that time, the unemployment rate among the youth increased and the enrolment rate reduced for students, who commenced to higher education after secondary school, and it led to the establishment of 16+ Action Plan in Scotland. In late 1980s the United Kingdom created the National Council for Vocational Qualifications. These frameworks and action plan were the main contributors towards education reform and considered as the fundamentals of the modern qualifications framework.

The development of a National Qualifications Framework (NQF) has been a major international trend in reforming national education and training systems since the 1980s. The initiative first started, and was diffused mostly, among English-speaking developed countries. However, since the late 1990s such frameworks have also been adopted by non-English-speaking and developing countries.

According to an International Labor Organization (ILO) survey (2010), more than 100 countries are in the process of developing, implementing or considering to implement some kind of a national qualifications framework. Today this number has reached up to 150 according different sources of research papers.

FIGURE 2. ESTABLISHMENT AND DEVELOPMENT OF QUALIFICATIONS FRAMEWORK



A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels.

It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally (ILO, 2007).

Qualifications framework is an important instrument for comparison of various qualifications and how one can progress from one level to another, within and/or across

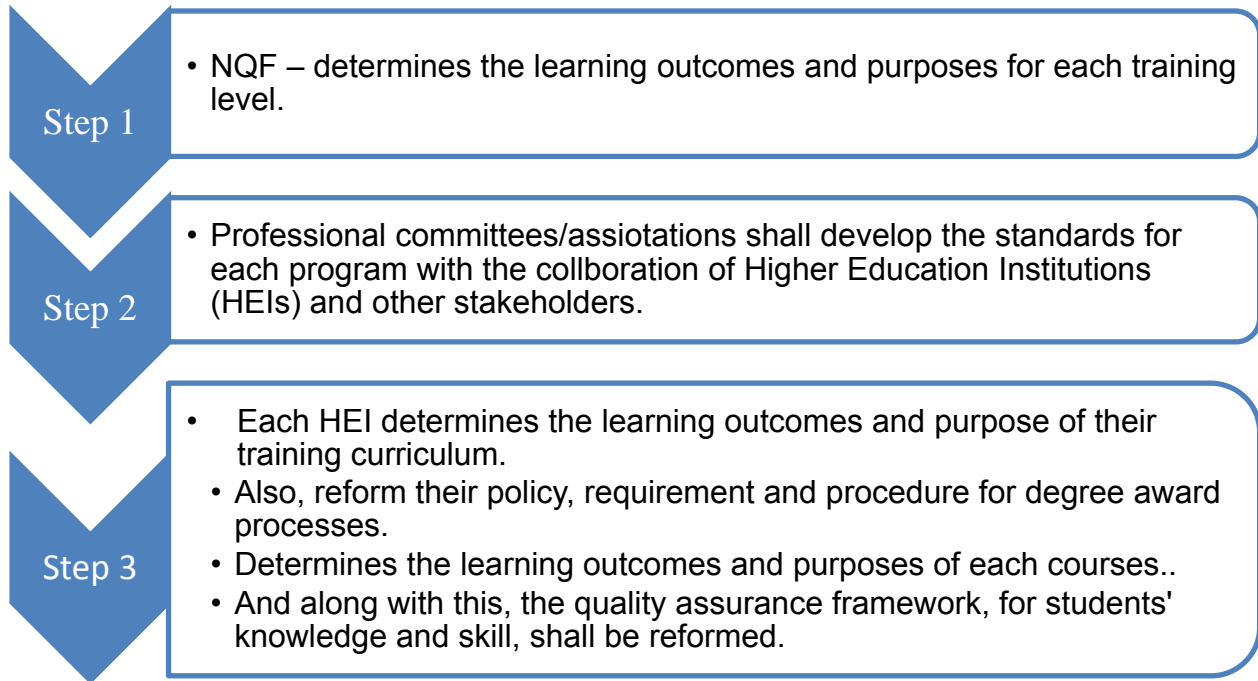
occupations or industrial sectors (and across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework).

NQF is used to achieve the following objectives:

- To provide transparency by clearly identifying the nature of qualifications and the relationship between qualifications and **providing a basis for the comparison of achievements across all parts of the training system;**
- To ensure that **qualifications** are relevant to employment and learning, and **meet the needs of learners**, the economy and education and training institutions;
- To **stimulate the development of lifelong learning**, including continuous skills development for adults;
- **To increase access to assessment and certification, and encouraging flexible and individualized learning processes;**
- **To establish a system for the accumulation, recognition and transfer of credit;**
- **To increase the quality and relevance of education and training** by stimulating the development of qualifications, based on internationally comparable standards of knowledge, skills and competences and supported by a rigorous quality assurance system;
- **To improve the employability and learning opportunities for individuals** by providing a basis for recognition and certification of their learning and achievements;
- **To support the continuation and sustainability of demand-based education and training system reforms.**

To conclude the whole prospect, qualifications framework provides the opportunities for education institutions to plan their education programs based on the comparison of their current quality, delivery and impact against academic standards and meet their internal quality assurance; and for accreditors and employers to obtain information on the knowledge, skills and practice of the graduates.

FIGURE 3. NQF AND OUTCOME BASED TRAINING FRAMEWORK



As for classifications, the following three types of qualifications framework are being established and implemented around the world:

A. Industrial Qualifications Framework

- Vocational qualifications framework (VQF)
- Qualifications framework for Higher education.

B. National qualifications framework

B. Regional qualifications framework

- European qualifications framework
- ASEAN qualifications framework.

The classifications of framework can be determined as ‘**a framework that must be enforced for all**’ or ‘**a framework that can be followed on a voluntary scale and with more flexibility**’, based on the range of the framework.

In order to determine specifically for higher educations, a number of countries such as Saudi Arabia and Thailand are developing and implementing NQF for their education

sectors to assure the equivalency of international academic degrees, implement the process according to their law and regulations of education and acredite the competency of the higher education standards and qualifications degrees. Also, more practices have been the emergence of regional qualifications frameworks covering qualifications in a number of countries in a particular geographical region such as European regions.

Whether the emphasis is on increasing the relevance and flexibility of education and training programs, implementing straightforward approach for recognizing and evaluating the prior learning, enhancing lifelong learning, improving the transparency of qualification systems, creating possibilities for credit accumulation and transfer, or developing quality assurance systems; governments are increasingly turning to qualifications frameworks as an important policy tool for reform the education system.

The following elemnets are the principal components for qualifications framework:

- ❖ **LEVEL:** qualifications framework level describe the increasing intellectual demand and complexity of learning expected as students shall progress to higher academic awards.
- ❖ **CREDITS:** Credit is an indication of the amount of learning expected and expressed numerically.
- ❖ **DOMAINS OF LEARNING:** Domains of Learning indicate the knowledge, skills and attitude of the graduates to achieve during their study for each NQF level.

The table below illustrates the Indonesian practice of demonstrating the knowledge, skills and expertise for each education qualifications for the students.

TABLE 1. KNOWLEDGE, SKILLS AND EXPERTISE OUTLINES FOR QUALIFICATIONS LEVELS, INDONESIA

Source:

SKILL INDICATORS	BACHELOR (S1)	MASTER (S2)	DOCTORATE (S3)
ACADEMIC	Be able to utilize their scientific knowledge and skills for creative procedures aimed to society	Be able to improve creative procedures aimed to society through research-development	BE ABLE TO cultivate new knowledge, technology within certain scientific

			field through research
RESEARCH	To be able to understand any scientific development and progress through research	To be able to participate any scientific development and progress through research	To be able to lead and manage any scientific development and progress through research
SCIENCE	Capable of recognizing and estimating the issues within their studied field	Be able to solve and make decisions for any issues within their discipline,	Capable of solving any problems for inter-, multi- or trans- discipline
INFLUENCY	Adaptable in any conditions (creative)	Capable of working independently under any circumstances (performer)	Has the ability to change any situation based on their own theory and approach. (intelligent)

CURRENT SITUATION OF MONGOLIA

Mongolia is one of those countries undergoing reform in their education sector and is in the initial stage of developing the nationwide qualifications framework. The Ministry of Labor (MoL) and the Ministry of Education, Culture and Science (MECS) are leading this process of developing the design of a NQF. Under the supervision of these ministries, the development of a NQF has been governed by an Advisory Group that was established in October 2014. This Advisory Group is comprised of officials of MoL and MECS, representatives of the employers' federation, various professional/industry associations, universities, and research institutes.

In many countries, the development of NQFs has been widely supported by multilateral and bilateral agencies. In the case of Mongolia, supported by the European Union (EU), the work was started under the STVET-1 project, October 2014. A consortium of the GOPA Consulting Company from Germany and the German International Cooperation Agency (GIZ) was designated as the project implementing body, and signed a contract with the European Union in June, 2014. This project is mainly focused on the design/review process of the implementation roadmap for a NQF and implementation strategy with regard to the incorporation of the National Vocational Qualifications Framework (NVQF) and TVET-related components.

In general, the stakeholders and schools of the TVET sector in Mongolia have a much better understanding and more experience with a NQF compared to the other stakeholders of higher education sector. This is due to their success in introducing and implementing a Competency-Based Training System and National Vocational Qualifications Framework (NVQF) under the 'Action Plan for Implementing Technical and Vocational Education and Training, 2012-2013' that was formulated by the then 'Agency for TVET' with full support from the Vocational Education and Training project of Millennium Challenge Fund (MCF) of Mongolia. It was one of the major reforms in the TVET sector. The piloting and implementation of the Competency-Based Curricula started in October, 2011 and to date there are over 60 curriculums in 8 economic sectors of mining, transportation, construction, agriculture, etc., which have been developed on the basis of competency-based standards (www.mol.gov.mn).

Since competency-based training systems should be implemented and developed at the systemic level of national qualification systems; the VET project supported by MCA-Mongolia, has designed a NVQF (it is suggested to name as presented design for qualifications levels and their objectives todorhoilolt') and developed the accompanying policy papers for VET credit and quality assurance systems for the Mongolian NVQF. This NVQF has been approved by the decree No.01 of the Chairman of the National Council for Vocational Education and Training on December 30, 2011 (Table 2). The approved NVQF has six levels structure (Level 4 of the Framework is the level which can provide entry to Higher Education) and was developed with the following inter-linked objectives (MCA-Mongolia, 2012):

- To provide transparency by clearly identifying the nature of qualifications and the relationship between qualifications and providing a basis for the comparison of achievements across all parts of the training system;
- To ensure that qualifications are relevant to employment and learning, and meet the needs of learners, the economy and education and training institutions;
- To stimulate the development of lifelong learning, including continuous skills development for adults;
- To increase access to assessment and certification, and encouraging flexible and individualized learning processes;
- To establish a system for the accumulation, recognition and transfer of credit;
- To increase the quality and relevance of education and training by stimulating the development of qualifications, based on internationally comparable standards of knowledge, skills and competences and supported by a rigorous quality assurance system;
- To improve the employability and learning opportunities for individuals by providing a basis for recognition and certification of their learning and achievements;
- To support the continuation and sustainability of demand-based education and training system reforms.

TABLE 2. MONGOLIAN NVQF LEVELS AND THEIR DESCRIPTIONS

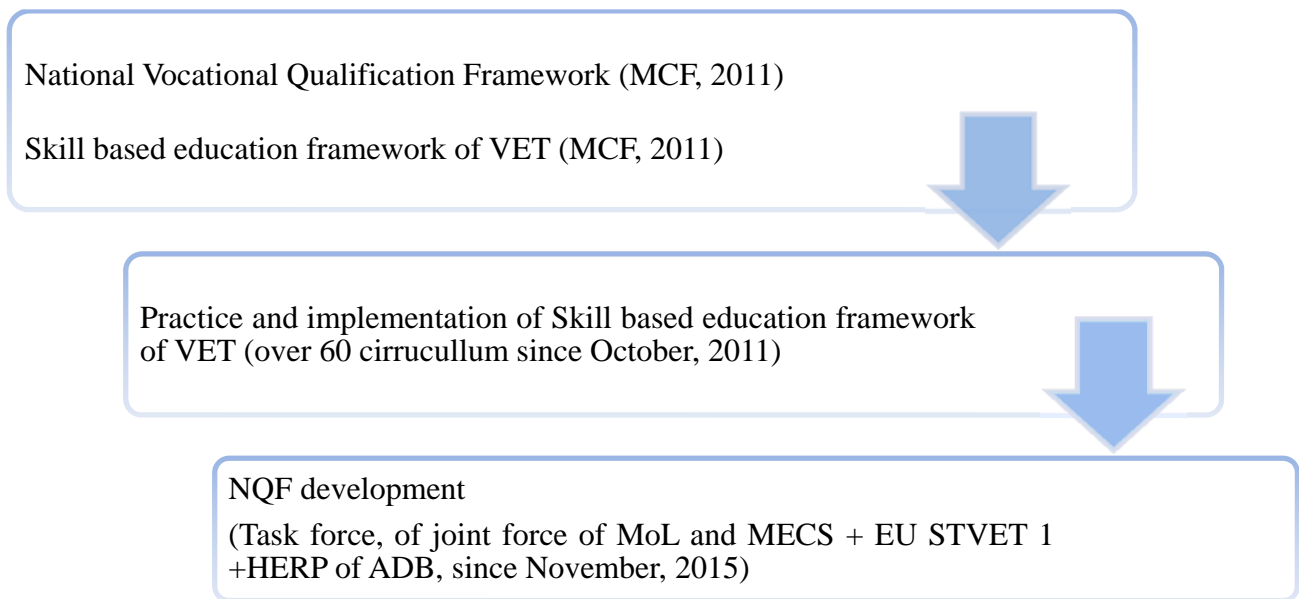
Level	Descriptions
VI	<p>To have achieved the theoretical knowledge, technical skills, and proper approach and attitude towards the work to comprehensively plan technical on-site assignments, set sequence of task management in accordance with technological requirements, efficiently estimate, allocate, locate and organize resources, provide high quality professional supervision, propose science-based assumptions and conclusions for any problematic and/or unclear (complicated or have not been previously researched) cases, and define solutions.</p> <p>This level is obtained through specifically designed technical and technological trainings.</p>
V	<p>To have achieved the theoretical knowledge, technical skills and proper approach and attitude towards the work to plan, manage, independently perform, development of work design and cost estimation; and participate in problem solving processes.</p> <p>This level is obtained through specifically designed technical trainings.</p>
IV	<p>To have achieved the technical knowledge, skills and proper attitude to independently perform tasks requiring advanced knowledge and skills, confidently utilize and operate relevant tools and equipment, supervise and support others to perform certain tasks and evaluate the performance.</p> <p>This level is obtained through specially designed vocational trainings.</p>
III	<p>To have achieved the knowledge, skills and attitude to independently perform the tasks requiring technical knowledge and skills, to assist any complicated technical tasks under direct supervision and to operate and utilize any machinery and equipment to perform such tasks.</p> <p>This level can be obtained through specifically designed vocational trainings and/or on-job trainings.</p>
II	<p>To have achieved the technical skills to perform practical work in limited contexts which require basic vocational knowledge and skills and to perform technical tasks under direct supervision within certain conditions and the tasks are basic and repetitive.</p> <p>This level is possibly obtained through short term competency modules, informal and on-job trainings.</p>
I	<p>To have achieved the basic vocational knowledge and skills to perform basic, limited, daily and repetitive tasks under direct supervision within certain conditions.</p> <p>This level is possibly obtained through short term competency modules, informal and on-job trainings.</p>

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Source: Appendix of the Decree No.01 of the Chairman of the National Council for Vocational Education and Training dated December 30, 2011, MoL

Furthermore, The NVQF glossary containing over 200 terminologies in Mongolian, Russian and English was prepared and printed in 500 copies and disseminated to all stakeholders and TVET schools (MCA-Mongolia, 2012) by the VET project, MCA-Mongolia.

FIGURE 4. DEVELOPMENT OF QUALIFICATIONS FRAMEWORK OF MONGOLIA



However, currently there is no nationwide or unified qualifications framework in Mongolia, there is a qualifications framework for the TVET sub sector Not only the MCA-Mongolia project, donor organizations such as World Bank have also recommended to the Government of Mongolia that they establish and implement a NQF (see Box 1 below) in the immediate future.

BOX 1. SUGGESTIONS FOR THE ESTABLISHMENT OF NQF FOR MONGOLIA

In the immediate future, a centralized examination, assessment and qualification system must be established as a matter of priority. This system will ensure consistency in the output of the TVET system. It is important that in designing a centralized examination, assessment and qualification system, practitioners from industries are involved. A well-designed curriculum development model that is demand-led and competency-based and an examination, assessment and qualification system which involves industries' participation will build a solid foundation of quality assurance. It will also ensure consistent quality of the TVET outputs. In the long run, a NQF framework similar to those adopted by countries such as Australia, New Zealand, UK, and South Africa could be implemented. *Source: World Bank (2010)*

To introduce such a comprehensive system requires an authorized body. Therefore, many countries have established a National Qualifications Authority (e.g. New Zealand Qualifications Authority-NZQA, Scottish Credit and Qualifications Authority-SCQA, South African Qualifications Authority-SAQA). Other countries, especially countries in Latin America have attached this task to existing institutions, such as the Ministry of Education, Ministry of Labor, and National Training Organizations (GIZ, 2013). As for Mongolia, the National Council for VOCATIONAL EDUCATION AND TRAINING, established in 2008, has overall responsibility for the NVQF. However, no significant progress has taken place in its development since its initial approval, which proves there is a lack of understanding that the qualifications framework/domain represents an operational system not just a simple conceptual model.

In summary, a unified, autonomous national qualifications authority does not exist in Mongolia; despite the fact that it is essential for the development and implementation of a NATIONAL qualifications framework. This situation may have contributed to the lack of progress in the establishment of a NQF.

NQF FOR HIGHER EDUCATION OF MONGOLIA (PROPOSAL)

NQF provides the opportunities to improve the quality and delivery of qualifications, to emphasise the difference and boundaries, and to successfully allocate the labour for formal and informal sectors of national economy. Furthermore, it can also be utilized as a method to compare and equavualte the knowledge, skill and attitude of the people

against the international graduates and improve the compatability of the country and more open to the world.

NQF of Mongolia shall be utilised as an 'unified reference' for all stakeholders of educational sector. In real life, advancing qualifications is considered to be a complicated process for employees and a framework, that clearly states the qualifications which can be used to compare their knowledge, skills and attitude, shall help for these circumstances.

Furthermore, the employees, whose knowledge, skills and atitudes are below the expected levels, shall be required to take certain courses in order to achieve the NQF qualifications levels. Also, the education institutions will be able to conduct the internal quality improvement in order to bring their transcripts of diploma and certificates closer to the requirements of NQF, in case that the learning outcomes and transcripts of diplomas and certificates do not meet the NQF requirements.

Numerous practices in countries with such framework throughout the world have shown that NQF provides various opportunities such as:

- Clarifies the requirements for studying towards a certain degree, commencing to a certain program and graduating and/or achieving a degree;
- a single system of levels for all qualifications based on standards or outcomes modular/unitized qualifications assessment based on explicit criteria
- a national system of credit accumulation and transfer a common approach to describing qualifications a common classification system for subjects and occupational sectors
- Clarifies all possible strands for graduates and employees to improve their knowledge, skills and expertise, evaluate and transfer their credits;
- Determines the required amount of credits for certain level of qualifications and general qualifications levels;
- In order to provide the opportunities to develop for students based on their prior learning and achievements, NQF demonstartes the credit equivalncy between quaifcations and/or training programs.

Since, NQF currently does not exist in Mongolia, lack of accredited curriculums, and the attempts of any education institutes for achieving international recognition for their curriculims are limited by approach to the few public universities; hense it results the lack of evidence to prove and compare that the graduates have achieved internationally recognized knowledge, skills and attitude.

Student should be prepared to graduate achieving the internationally recognizable knowledge, skills and expertise once the curriculum that are developed/reformed within NQF. Furthermore, it is important to reflect the skills that Mongolia desires to be achieved by its people within the reformed curriculum and plans.

LEVEL

It was agreed that 10 levels can be introduced for NQF of Mongolia as a result of the five meetings since October, 2014 that organized by MoL, MECS, employers and professional committees. The last four levels (higher education diploma, bachelor degree, masters degree and doctoral) are the higher education degrees.

Some countries, such as Australia, include the degree for bachelor with honor as an independent level within their NQF. This is also a case for some graduates in Mongolia, for achieving specific conditions, but is not included in the NQF proposal.

The commencing level from high school completion to higher education institutes is 4 or the people who complted the secondary school may proceed to study at universities. As for students completed vocational training, the commencing towards higher education can be achieved after completion of 6th level or the people who hold the IV grade diploma of vocational training can proceed to study at universities.

Satisfactory completion of studies at any level does not necessarily qualify a person to enter studies at the next level.

Entry requirements may be set based on grades or other criteria to ensure that applicants have a reasonable chance of successfully undertaking the more advanced and complex studies leading to a higher qualification.

In other words, it is a common practice that the HEI organizing the education may require certain amount of grade point average and to achieve above specific points from

enrolment exams, and this usually to assure the students can progress to higher degrees based on their previous studies.

CREDITS

According to the credit systems of Mongolia, the average expected requirement is 30 credit hours in an academic year for a full time student, studying towards a bachelor degree. Apart from courses, the credits also include components of study such as the scale of a thesis/research work, laboratory work or field work apart from the general courses.

The length of bachelor degree programs and the number of credit hours or credit points given may differ for programs with the same or similar titles. For example, a program leading to a degree of bachelor may be four or five years in length depending on the amount of learning expected and the complexity of the qualifications.

A similar period of study in different programs could lead to two different higher education degrees. For example, they can be bachelor and master degrees and the study for the master degree component would be taken at the more advanced level required for that degree. In other words, the title is based on the level or complexity of learning rather than just the study period (despite the minimum amounts of credit hours, that should be collected for commencing that level of degree, are stated).

DOMAINS OF LEARNING

Domains of Learning indicate the **knowledge, skills and attitude** of the graduates to achieve during their study for each NQF level.

DOMAINS OF LEARNING		
KNOWLEDGE	SKILLS	ATTITUDE
<p>Skills of understanding, memorizing and expressing of information.</p> <ul style="list-style-type: none"> • Knowledge of certain case and evidence; • Understanding, theory, perspective/belief and knowledge of procedure; 	<ul style="list-style-type: none"> • Skill to be able to utilize their own understanding and knowledge about understanding, theory, procedure and performance. • Analyze situations and apply conceptual understanding of principles and theories in 	<p>Attitude towards the understanding the responsibilities for society, occupation, profession and self and professional development.</p>

-
- Knowledge of critical thinking and creative problem solving when faced with unanticipated new situations
-

LEARNING OUTCOMES

The learning outcomes as indicated above shall be determined for each NQF levels.

The learning outcomes in each domain there is an increase in the scale or complexity of the learning that is expected. In each level the learning outcomes are intended to be cumulative of the previous levels and the learning is expected to be increased from the previous levels.

Learning outcomes in the domains of **knowledge** and **skills** are directly related to the field of study undertaken and details of the knowledge and skill appropriate to those fields should be specified in program and course specifications.

However, learning outcomes for **attitude** are intended to apply to all students at the level described regardless of field of study.

NQF determines the minimum requirements of knowledge, skills and attitude for a student to achieve, however it is expected for a student to strive to achieve higher standard knowledge, skills and attitude. The HEIs should apply the stimulation to support the students who strive for better performance (award of 'honor' diploma for such achievement etc.) Descriptions of learning outcomes at each of the levels for higher education levels are provided in Table 3.

TABLE 3. LEARNING OUTCOMES FOR NQF OF MONGOLIA (PROPOSAL)

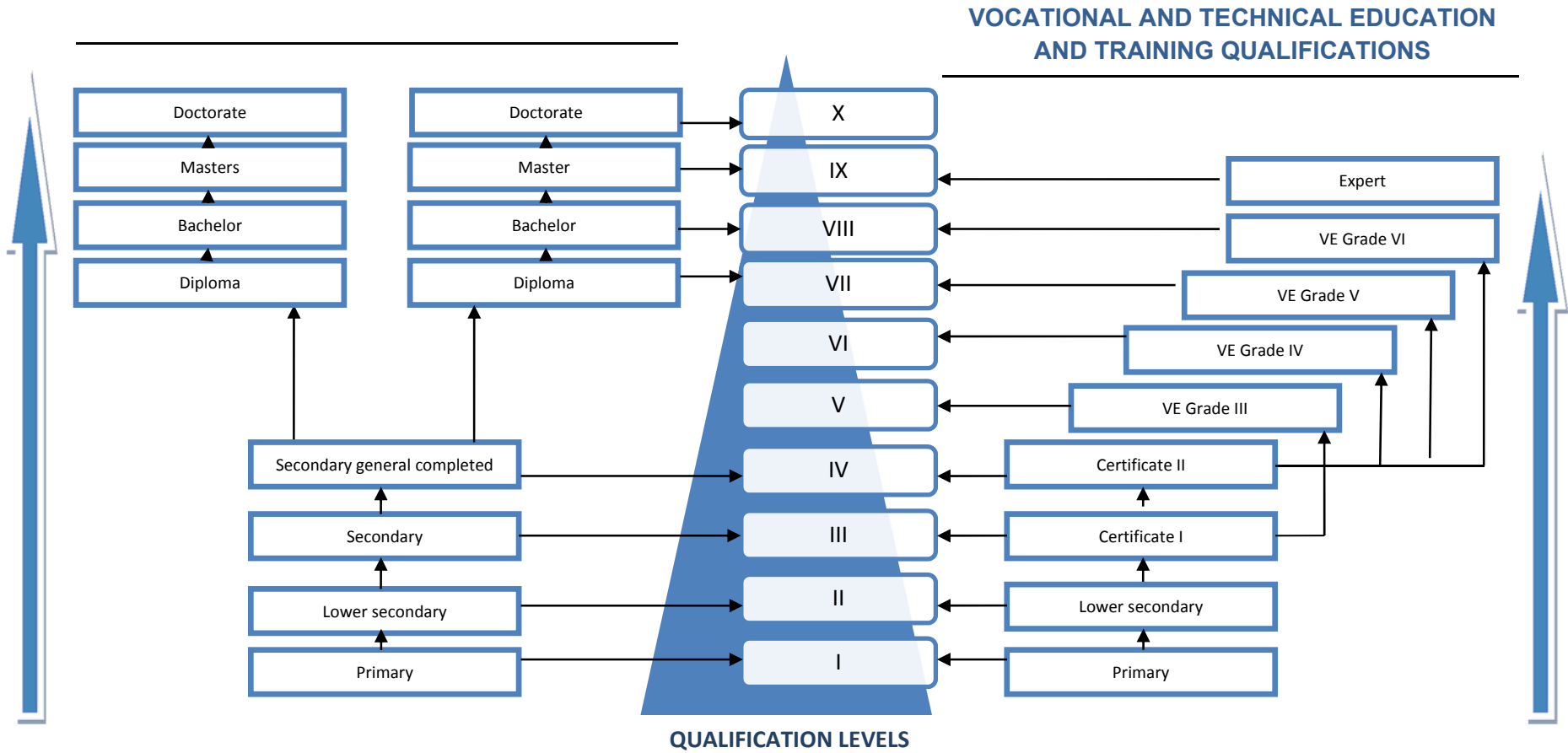
EDUCATION LEVEL, DEGREE QUALIFICATION S LEVEL		HIGHER EDUCATION			
		DIPLOMA	BACHELOR	MASTERS DEGREE	DOCTORAL
QUALIFICATION S LEVEL		VII	VIII	IX	X
LEVEL DESCRIPTOR/ LEARNING OUTCOME	KNOWLEDGE	<p>Holders of a diploma, demonstrate: General and detailed systematic knowledge of theory and practice in relation of the field of study to be applied for employment.</p>	<p>Holders of a bachelor degree, demonstrate: Knowledge of routine issues of employment and occupations, conditions and features of the subject/dicsipline/sector</p>	<p>Holders of a master’s degree, demonstrate: Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries; and a critical knowledge of the relevance with other main streams of science</p>	<p>Holders of a doctorate degree, demonstrate: Enhanced knowledge of a researcher, including the knowledge of general and critical features, principles and critical requirements/limitations of the subject/discipline/sector; and the complex and publicly agreed issues.</p>
		<p>Knowledge of generally applied methods and technologies of the studied science fields and can be used for a continuous period.</p> <p>Knowledge of main terminologies and definitions in their study of science (in their native language and/or one of globally accepted languages)</p>	<p>Knowledge that covers and integrates most of the principal areas, features, boundaries, terminology and conventions of a subject/discipline/sector.</p> <p>knowledge of routine methods of obtaining knowledge and making decisions the subject/discipline/sector.</p>	<p>Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions</p> <p>In using a significant range of the principal professional skills (specifically related to obtaining knowledge and making decisions), techniques, practices and/or materials associated with the subject/discipline/sector</p>	<p>A knowledge to participate the development of a defined range of core theories, concepts, principles and terminology.</p> <p>Theoretical, practical and research knowledge and skills in designing and executing research independently within the subject/discipline/sector</p>

	SKILLS	<p>To be able to: Demonstrate competency within the discipline and sector, including the following: planning and implementation, selection of the appropriate methods to perform work and performing both complex and simple tasks.</p> <p>Work professionally communicating through Mongolian and/or a language of wider communication.</p> <p>Utilize all necessary methods in order to improve their knowledge and gain more education (self development) and use the information technologies for such purposes.</p> <p>Provide responsible decisions of employment and enterprunership.</p>	<p>To be able to: Analyse the principles and theories, identify the relevance and evaluate when necessary for the general foundations of the dicsipline/sector and occupational knowledge.</p> <p>To have achieved skills to independently study and develop.</p> <p>Identify, conceptualize and define new and abstract problems and issues and demonstrate the theoretical and practical foundations of the issues for decision making.</p> <p>In using a few skills, techniques, practices and/or materials that are specialized, advanced and/or at the forefront of a subject/discipline/sector.</p> <p>Work in a team and collaborate with others.</p> <p>Organize and manage various resources.</p> <p>Apply the professional knowledge in various occupational situations.</p>	<p>To be able to: Analyze general principles and theories, critically evaluate and determine the multi-purpose and detailed relevance for the general foundations of the dicsipline/sector and occupational knowledge.</p> <p>Identify, conceptualize and define new and abstract problems and issues and demonstrate the theoretical and practical foundations of the issues for decision making.</p> <p>To be able to Develop complex and trans-specialization responses to problems and issues in relation with discipline and occupation.</p> <p>Work for any research and development projects</p> <p>Demonstrate a high competency in utilizing information and communication technology</p> <p>Work professionally and communicate either in Mongolian or a language of wider communication.</p> <p>Utilize and operate various types of methods and technology in abstract and non-predictable situations.</p>	<p>To be able to: Discover, determine and evaluate general principles and theories, critically evaluate and determine the multi-purpose and detailed relevance for the general foundations of the dicsipline/sector and occupational knowledge.</p> <p>Utilize, develop and improve specific methods for obtaining knowledge and providing decisions within the subject/discipline/sector.</p> <p>In designing and executing research, investigative or development projects to deal with new problems and issues</p> <p>Plan and implement a new project within certain dicsipline/sector; develop and create new methods, technology and attitude.</p> <p>Discover new and previously non-predicted ideas within the dicsipline/sector and be able to develop the required theoretical and practical principles and determine the reasons.</p>
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EDUCATION LEVEL, DEGREE QUALIFICATIONS LEVEL		HIGHER EDUCATION			
		DIPLOMA	BACHELOR	MASTERS DEGREE	DOCTORAL
		VII	VIII	IX	X
				Author scientific paper within the discipline/sector.	
	ATTITUDE	<p>To have an open attitude for new findings, innovation and discoveries in the scientific field of their study those related to the professions and occupations. To strive to utilize and understand those discoveries in practice.</p> <p>To demonstrate the goals of continuous independent study and train.</p> <p>To concentrate on demonstrating high quality work in their occupation and professional field.</p> <p>To apply proper, critical attitude towards own work.</p> <p>Strive to demonstrate and recognize the social duty and values for their occupation.</p>	<p>Strive to demonstrate and recognize the of social duty, responsibility and relevance for their occupation.</p> <p>Always ready to share and develop the view of their occupation and professions</p> <p>To be able to achieve continuous independent study and development.</p>	<p>Strive to demonstrate and recognize the of social duty, responsibility and relevance for their occupation.</p> <p>To have the desire to train their professions and understand the work they do.</p> <p>Always demonstrate the increasing interest and curiosity towards the profession</p>	<p>Endeavour to influence and make changes in social development through their contribution to the theoretical and principal development of the sector/discipline.</p> <p>Exercise interest and skills to develop, expose and formulate any hidden/undiscovered research issues within the /discipline/sector.</p> <p>Continuously seek for new innovative ideas and exercise broad application of hard work and practice.</p>
CONTENT CAPACITY	Minimum credit	90	120 (including credit hours from previous level)	150 (including credit hours from previous level)	210 (including credit hours from previous level)

EDUCATION LEVEL, DEGREE		HIGHER EDUCATION			
		DIPLOMA	BACHELOR	MASTERS DEGREE	DOCTORAL
QUALIFICATION S LEVEL		VII	VIII	IX	X
	Average study period	3 years	4 years (including previous study)	2 years	3 years (including previous study)
DEGREE		-	BA in BS in Bachelor in ...	MA in ... MS in ... Master in ...	PhD in Doctor of
VERIFICATION DOCUMENT		C diploma of Higher education	D diploma of Higher education	E diploma of Higher education	F diploma of Higher education

FIGURE 4. RELEVANCE OF NQF LEVELS FOR MONGOLIA (PROPOSAL)



LEVEL OF ENTRY TO HIGHER EDUCATION

In general, a person who completed a full program of secondary education are entitled to proceed to study for higher education degree, whether he/she achieved the learning through highschool and/or vocational trainings and education program. However, they should pass the additional requirements by the state central agency and relevant HEIs such as admission exams.

ACADEMIC AND PROFESSIONAL QUALIFICATIONS

NQF for Higher Educations was proposed to employ two general components of academics and professional qualifications that appropriately coexist. These qualifications shall determine the curriculum and purpose of the higher education programs.

Academic qualification focuses on reseach and experimental knowledge and skills and transmission of knowledege in fields that are not directly related to professional emplyment. However, academic qualification programs should also consider providing the graduates the abilities that will be of significant value in employment as well as in everyday life.

On the other hand, **professional qualification** is mainly designed to provide students with the high levels of knowledge, skill and attitude required for professional occupations and it is based on more practical experiences. When implementing professional qualifications, the HEIs should involve students thorough understanding of research and theoretical knowledge in their field and in related areas, and develop general thinking and problem solving abilities that are applicable in any context.

The differences between these two types are important to be emphasized and reflected in detailed content of program curricula and in the titles of awards.

FIELD DESCRIPTORS

The terms used for levels such as Diploma, Bachelor, Master, and Doctor are the expectations for *complexity of learning*. Field descriptors are the terms used to describe the broad area of study such as Arts, Science, Engineering; and in some cases areas of specialization within the field.

Degree titles generally demonstrate overall higher education however, some are designed for **professional practice carry a title that relates to that professional field** such as Bachelor of Arts (B.A.), Bachelor of Science (B.S.), Bachelor of Fine Arts (B.F.A.), Bachelor of Science in Electrical Engineering (B.S.E.E.), Master of Arts (M.A.), Master of Science (MS) and Master of Education (MEd) etc.

Programs leading to professional degrees in such fields as engineering, architecture, law and education research **typically are restrictive in content.**

Degree programs such as “Arts” болон “Science” are not restrictive within their focus of the education but they are subsequently different by the teaching methods.

BOX 2. BACHELOR OF ‘ARTS’

- Usually indicates a liberal arts education and is most often awarded to graduates completed majors in the arts, humanities and social sciences.
- It is typically the most flexible of university degrees, as most majors within it do not require extensive pre-requisite courses (the relevance between courses within the study program are not strict).
- Requirements for research works on certain levels are quite common
- The goals of the BA are to acquaint the student with a certain scientific discipline and to gradually instill in them the skills to pursue that discipline on their own.
- In general, this degree aims to provide students a broad undergraduate education. The student are provided with opportunities to study for the courses of their personal interests as well as the required courses to qualify for advanced study in the major.
- As a result, students will have achieved the skills to approach any issues with critical thinking, apply own individuality and develop the convertible skills in the market.

Source: Washington university (2012)

BOX 3. BACHELOR OF 'SCIENCE'

- Compared to Bachelor of "Arts"; Bachelor of Science is often more focused on qualifications and require more specific credits and the courses for the degree. Therefore, there is less flexibility.
- The degree usually requires prerequisite courses for entry into a major.
- Programs leading to a BS generally have more quantitative and mathematical requirements, while the programs involve a high level of interdependence of required courses and consequently incorporate sequential studies.
- Research within the major often requires prescribed method and well organized approaches such as laboratory experiment and fieldwork.
- In general, the degree programs provide for a specialized and research-oriented the students will often be considering post-graduate study while the other part of graduates pursue careers in specific fields that require the use of experimentation and the application of scientific principles and facts in solving problems; understanding of the critical role of mathematical reasoning; analysis and techniques in comprehending problems.
- However, while it is common that the degree is awarded for achievement in the natural sciences, what it truly focuses is the amount of specialization that is provided.

Source: Washington university (2012)

Education (DEd or EdD) or Doctor of Engineering (DEng) may include a strong research component but are more practically and skill focused and include substantial coursework.

HEIs may offer additional study opportunities beyond doctoral level, as long as the program does not conflict with any relevant laws and regulations; it is a common practice that newly awarded doctors participate in such studies and trainings to offer additional awards including the title of doctor for outstanding lifetime achievement or contributions to society. It is important that these practices are carried out in a consistent way. The following arrangements which are consistent with common international practice and should be followed.

In case of successfully completion of this type of training and research work, it is a common practice that issue if certificate acknowledging the studied courses, grade and research papers instead of awarding a specific education degree.

Education degrees, diplomas and certificates are awarded based on the achievement of academic or professional qualifications. (Table 4).

TABLE 4. AWARD OF THE EDUCATION DEGREE BY ACADEMIC AND PROFESSIONAL QUALIFICATIONS

LEVELS	ACADEMIC QUALIFICATIONS	PROFESSIONAL QUALIFICATIONS
ENTRY LEVEL: Completion of General Education		
DIPLOMA	Diploma in (Arts) of Higher Education	Diploma in (name of specialized field) of Higher Education
	Diploma in (Science) of Higher Education	
BACHELOR DEGREE	Bachelor of Arts, Bachelor of Science	Bachelor of (professional field-Business, Education, Engineering)
MASTER DEGREE	Master of Science, Master of Arts	Master of (professional field-Business, Education, Engineering)
DOCTORAL DEGREE	Doctor of Philosophy	Doctor of (professional field-Business, Education, Engineering)

Source: Thailand (2006)

In case of establishment of NQF, which broadly serves all education sectors in Mongolia, then the authorized body shall develop and provide and enforce the general procedure and/or reference/memorandum for applications and names of award education degree as international practices.

RECOGNIZING PRIOR LEARNING

In many cases students will commence higher education studies directly after completion of high school, however in some cases students may have developed important skill and knowledge through informal education systems or in employment, or have taken further studies beyond the level of basic education in vocational education or other higher education institutions.

Students should not be required to duplicate learning they have already acquired or repeat work they have already completed satisfactorily elsewhere. They should be given advanced standing when it can be demonstrated that they have knowledge and skill that are substantially equivalent to the learning outcomes described in the framework, and be permitted to proceed to further studies in a flexible way. For example, institutions should develop processes to evaluate the background of students who might be considered for advanced standing towards academic awards, and provide counselling and guidance for those who are admitted in this way.

On the other hand, it can be downside for students if they are expected to proceed with studies for which they do not have adequate background. Therefore, it is important that where HEIs have identified special student attributes that reflect their particular mission and objectives, students admitted with advanced standing have the time required to develop those special attributes.

UTILIZING NQF FOR QUALITY ACCREDITATION

NQF has the opportunities to provide guidance for students, parents, legal guardians, employers and all other stakeholders, who are interested in national and international quality accreditation of qualifications, about the expected standards of knowledge, skills and personal qualities of students at different qualification levels.

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